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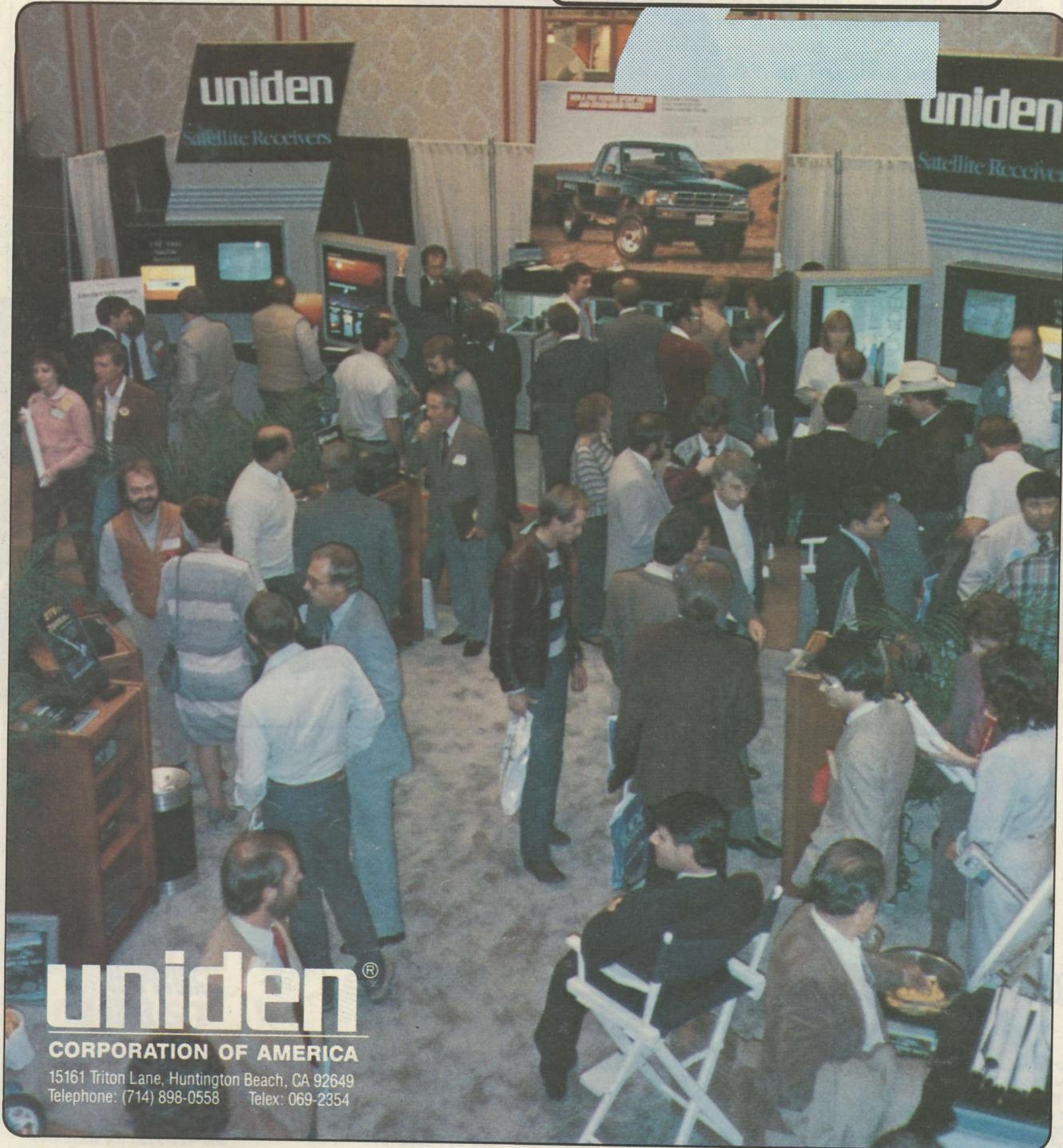
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DECEMBER 15, 1984



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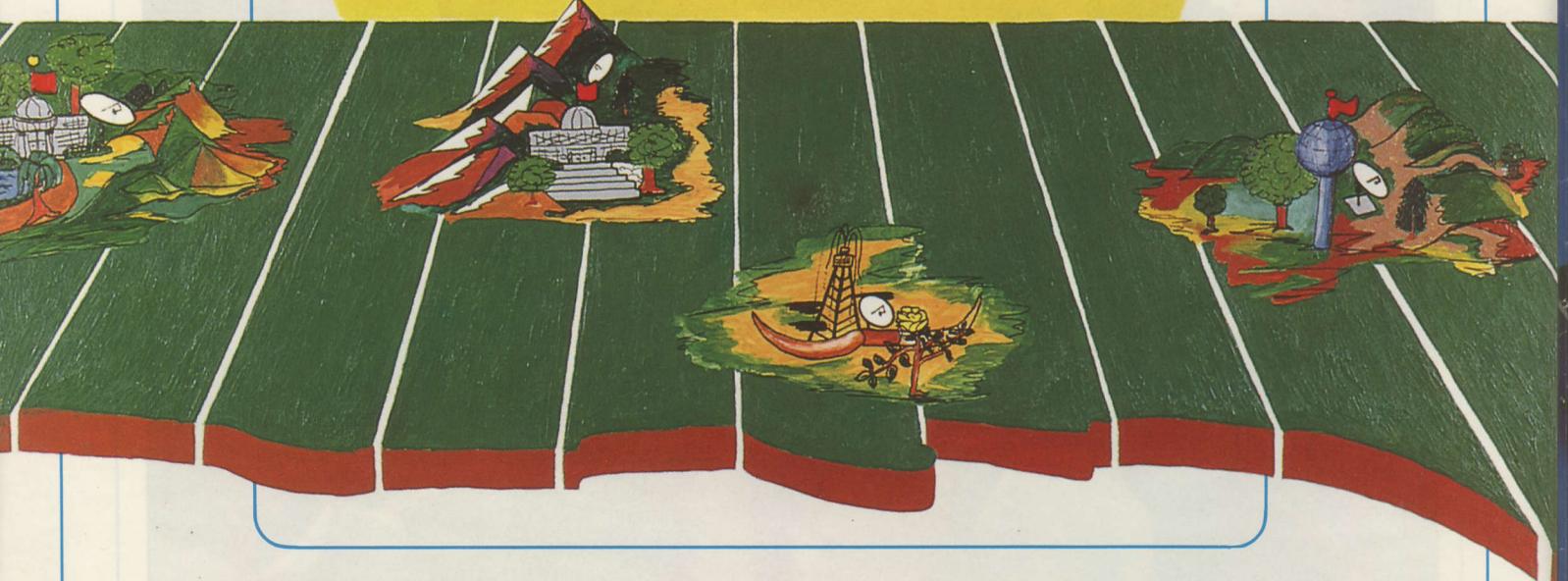
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DECEMBER 15, 1984

CHANGING Of The Guard

There was something inspiring about the setting for the first meeting of the new Board of Directors for SPACE in Dallas. The meeting room looked large enough to hold a small convention and indeed more than one attending remarked to me "Aren't there more **here** than attended the very first industry trade show???" Not quite, but the crowd of more than 50 was impressive nonetheless. The meeting room and the unusual rectangular setting for the tables was large enough that no group photo could be taken; no matter where we positioned ourselves, we lost one or two corners of the tables. Fifty people is no longer a 'group'; it is a small army.

The agenda had been distributed to the new members of the board some 24 to 48 hours prior to the meeting. It was nearly an inch thick and ultimately would require ten hours of intensive work to plow through. The entire session was 'open' and many members of the press stuck it out for the entire 10 hour period. The 'television press corps' (**Boresight [Video] Magazine**) was even on hand.

Let's concentrate on just one aspect of the marathon session; the changing of the officers. **Past President Peter Dalton** (ex-KLM) wanted to shift the election of officers from the rear of the agenda to the front. Some did not like that idea. The elections had been placed at the end of the agenda 'to allow the new board to become better acquainted with one another' before making decisions which would follow us for many years to come. Dalton wanted to change that around 'for personal reasons.' He was down the road on that path when **Hans Giner** from Luxor and **Doug Dehnert** from USS protested. A lively debate followed, and when a vote was taken, the elections were moved back to their previous spot on the agenda; at the end.

Electing leadership for 1985 and beyond is a strange ritual of the 'TVRO tribe.' This year the rules

are new; we were electing a Chairman of the Board (**H. Taylor Howard** was selected), a President (**Bud Ross** of Birdview was selected), a Treasurer (**David Johnson** of Paradigm was selected) and a Secretary (**Ted Anderson** of Automation Techniques was selected). In 1985, everyone will move up one step with Ross becoming Chairman, Johnson President, Anderson Treasurer and one new man will be elected as Secretary.

Johnson's election as Treasurer was especially 'pointed': "I would like to serve in the position where I can contribute the most to the 'fiscal responsibility' of the trade association" he told fellow board members. He had spent much of 1984 'campaigning' for fiscal reform and had been dismissed from the Board as its Chairman this past August. His return to the Board had been close and his return as an officer was a dramatic event in industry politics.

As important as the four elected officers may be to shaping the industry's trade association 'policy' during 1985, the selection of the 'Executive Committee' was even more important. All four officers (just named) will serve along with three additional board members. The new by-laws provide for a dealer member on EXCO (**King Oberlin** of Indiana), a distributor member (**Stan Leaf** of Oregon) and a pioneer (**Bob Behar** of Hero). Two alternates to the EXCO are Ron Wysong (former secretary; 1984) and Bob Dushane (Janeil). Thus the seven who will adopt policy which we will all face from time to time are: Howard, Ross, Johnson, Anderson, Oberlin, Leaf and Behar. The significance here is that coming into the meeting only Behar was on EXCO.

1985 is being widely proclaimed as a 'year of change,' in everything that affects TVRO. The changes made in the SPACE board are a precursor to the widespread change we are all anticipating in 1985. Truly, we have seen the end of one era and **the start** of another.

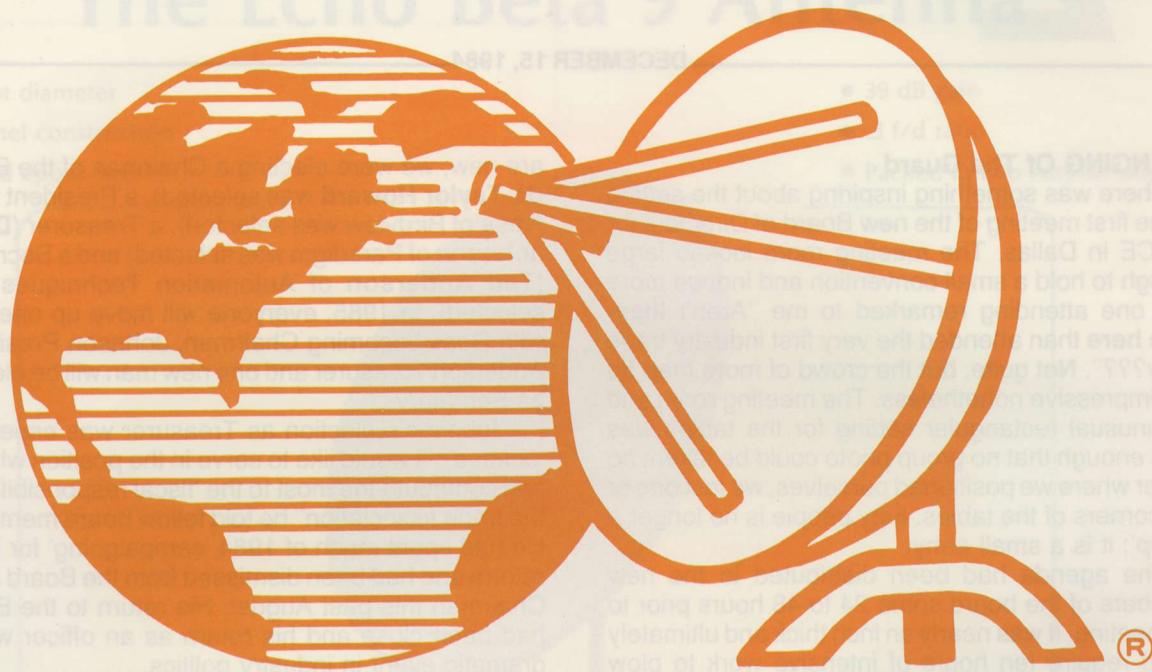
**COOP'S
SATELLITE
DIGEST**
/2



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RECEIVER News

ANDERSON SCIENTIFIC (2693 Commerce Rd., Rapid City, SD 57702; 605/341-3781) has updated its list of authorized 'Master Distributors,' featuring both the Anderson block downconversion receiver units as well as service and warranty data. Included are: **Electronics Supply Co.**, Mobile Al. (Dave Guess; 205/478-0455), **Eric Resources**, Los Angeles, Ca. (Ron Teeguarden; 213/747-3783); **Henrichs Electronics**, Shickley, Nb. (Tim Heinrichs; 402/627-4245); **Interstate Electric**, Shreveport, La. (Buddy Parker, 318/221-6131); **National Satellite Communications**, (Orlando, Fl. Vernon Hunter, 800-821-8659 in state or 800-322-4044 out of state) / (Clifton Park, NJ Eric Spiak, 800-522-3538 in state or 800-833-4485 out of state); **Nurrend Manufacturing**, Omaha, Nb. (Daniel Ord, 402/346-6899); **Satellite Sales**, Cleveland, Oh. (Michael Balas, 800-321-1188); **Satellite Wholesalers**, Las Vegas, NV. (Bob Gleger, 702/733-6284); **Saturn Scientific**, Fulton, Ky. (Darrell Matheny, 502/472-3704).

R.L. DRAKE CO. (540 Richard St., Miamisburg, Ohio 45342; 513/866-2421) has brought out the ESR240A TVRO receiver with a suggested consumer net price of \$799 versus \$895 for the earlier model in the same line. The 'A' model includes wireless remote control that interconnects from the receiver to the Drake APS-24 antenna positioners (positioners manufactured during 1984 will interface). The new unit 'breaks tradition' by lowering the pricing while adding features; appearance is virtually identical to the earlier unit.

ROSS ELECTRONICS (255 Madison Street, Red Bluff, Ca. 96080; 916/529-0200) has announced a trio of receivers manufactured in the USA. All units have weatherproof downconverters, built-in 'microwave filter,' built-in modulator, interface for Polarotor 1™ and 1 year labor/5 year parts coverage. The Corona is a low-end priced unit with audio tuning, polarity change and skew adjustment. The Orion has a built-in control for an optional Callisto antenna positioner plus LCD readouts for antenna position, channel selected and signal level. The Altair is the top of the line unit adding 'stereo tuning.'



CONTROL Plus Receivers From Ross

SATELLITE MICROWAVE CORP. (1055 W. Victoria St., P.O. Box 5269, Compton, Ca. 90220; 213/637-3663) has a name change from 'Pacific Electronics & Technology Group.' The firm markets BDC type TVRO receivers (SMC-220, formerly Pet-Com Two and SMC-240, formerly the Pet-Com One) using the 400 to 900 MHz IF band. The second IF frequency is 45 MHz with an IF bandwidth of 26 MHz. Audio subcarrier tuning from 5 to 8 MHz is standard with interfacing for the Polarotor 1 unit. Their BDC unit has a typical noise figure of 17 dB (maximum) with 20 dB of circuit gain and an output level in the 15 dBmV region. RF output (channels 3 or 4) plus baseband video and audio are provided.

STS, INC. (2310-12 Millpark Drive, Maryland Heights, Mo. 63043; 314/423-5560) has announced availability of their STS-MBS-SRb block downconversion system receiver for multiple receiver systems. The receiver has a temperature stabilized block-oscillator, detent tuning, signal level metering and electronic AB switching. Audio is mono only. The IF range is 950-1450 MHz and the final IF has SAW

NEW PRODUCTS/ SERVICES/ EVENTS

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WHERE's The Dish?

filtering.

TRANSAT MICROWAVE SYSTEMS, INC. (745 East 14th Place, Los Angeles, Ca. 90021; 213/747-3783) has announced a 'US designed, Korea and Japan manufactured' BDC satellite receiver system. The 2M7 receiver has 24 position detent tuning, audio tuning from 5.0 to 8.0 MHz, AFC switch (in/out), polarity reversal, video fine-tune, V-H skew controls, RF signal level metering and a built-in modulator (channels 3 or 4).

WINEGARD COMPANY (3000 Kirkwood St., P.O. Box 1007, Burlington, Iowa 52601; 319/753-0121) has released a professionally produced seven-minute featurette videotape entitled 'The Remarkable Dish.' Blending NASA and space footage with installations of typical home terminals, the videotape explains how a TVRO works and makes it easy for the consumer to understand what owning a TVRO is all about. The tape is intended as a dealer in-store promotional tool and is available to dealers (in VHS only) for \$19.95.

DISTRIBUTOR Doings

BROOKS/ 'The Satellite Store' has begun week-long training sessions at their Aberdeen, NJ headquarters for new franchisees and key employees. Heading up the training periods is Fred Kazalski, a 28 year veteran of the microwave industry with 27 of those years at Prodelin (M/A-Com). Dubbed 'Satellite University,' most sessions are conducted by Brooks' personnel. Brooks also recently opened a store in Aberdeen (NJ), their second in the nationwide projected chain, as well as Covington, Louisiana (the third).

CONSUMER SATELLITE SYSTEMS (112 Shadowlawn Drive, Noblesville, In. 46060) has added the SAT-ROOF Mounts 'Peak Performer' product to their four-outlet distribution line-up, as a 'master distributor.' The 'Peak Performer' is a roof mount designed to simplify rooftop mounting for solid dishes (to 10') and mesh dishes (to 12'), produced in Springfield, Ma.

DONLEY INTERNATIONAL, INC. (5702 D West 34th Street, Houston, Texas 77092; 713/956-2984) has formed 'Donley International TVRO Division, Inc.' to open up the distribution of home TVRO products for the firm. Donley has handled the DX-642 receiver system for their professional (SMATV) clients, and in opening the TVRO division has added Amplica and Uniden receivers plus Miralite, Beach Craft and StarDish antenna plus a line of related equipment.

HOME SATELLITE (1351 Vine Street, Sacramento, Ca. 95814; 916/441-6036) has released their schedule for dealer seminars and installation schooling for 1985. Sessions last two-days and dealers interested in attending should contact Willie Seirer. Upcoming dates for the next three months are January 11-12, February 1-2, and March 1-2.

SATELLITE PRODUCT DISTRIBUTORS (P.O. Box 100, Flatwoods, WV 26621; 304/765-7431) is the exclusive distribution agent for the Fiber-Tech/Sat Lok Fiberglass antenna packages. They are available as 4 piece 10 and 12', 1 piece 4, 6, 8, 9 and 10 foot antennas. SPD also distributes Conifer, Raydx, Craft, Draco, Pro Sat, Houston Tracker, Dexcel/Gould, STS, Drake, Uniden, Wilson, Toki, Spacevision, Chaparral products. The firm founded in January of 1984, and began in TVRO in 1982. Sales manager is Dan Dishner.

STARTRAK SATELLITE SYSTEMS (Lamplighter Plaza, Kulpsville, Pa. 19443; 215/368-2803) has recently completed a complex

TVRO installation for the President of Warner Amex and former Senior Advisor to President Reagan, Drew Lewis. The system consists of a 12 foot (Paralipse) antenna equipped with an orthomode coupler for simultaneous reception from both polarizations, a (Radio-semiconductor) 70 degree LNA, Luxor 9550 receivers and a Luxor 9534 actuator. The system has more than a mile of cable interconnecting five separate residence buildings on the Lewis 'estate' near Schwenksville, Pennsylvania.

ANTENNA Antics

CAMARSAT SATELLITE TV SYSTEMS, INC. (810A Route Trans Canada Highway, Ville St.-Laurent, Quebec, Canada H4S 1M5; 514/332-6224) has introduced a pair of 10 and 12 foot aluminum TVRO antennas. Each antenna has 24 interchangeable ribs and 24 interchangeable lightweight aluminum panels. The antennas are available with 'true' polar mount or a 'basic' Az-El mount. The firm claims installation time is three hours by two men; f/D ratios are .45 (10') and .42 (12') while the dish plus mount weigh in at 315 pounds (10') and 360 (12'). US distributors are sought. Shipment is in three boxes, five anodized colors are available and there is an unconditional one-year warranty.



CAMARSAT from Quebec

CHAPARRAL COMMUNICATIONS 2360 Bering Drive, San Jose, Ca. 95131; 408/262-2536) has begun shipping the Polarotor II-A and I-A versions. This unit features an adjustable scalar rings for optimized f/D 'matching' for dishes with varying 'depths.' The fixed-ring Polarotors will continue to be available and the firm recommends continued use of the 'Golden Ring' insert for dishes with an f/D of .33 and 'below.'

R.L. DRAKE CO. (540 Richard St., Miamisburg, Ohio 45342; 513/866-2421) has upgraded their antenna actuator to model APS24-A. The new actuator has a 'heavy duty' approach to design and construction to reflect the increased loading by many of the newer TVRO antenna designs in the marketplace. The actuator mates with their recently announced ESR-240A receiver which has infrared remote control of the satellite's location. Suggested list price for the actuator is \$399.95.

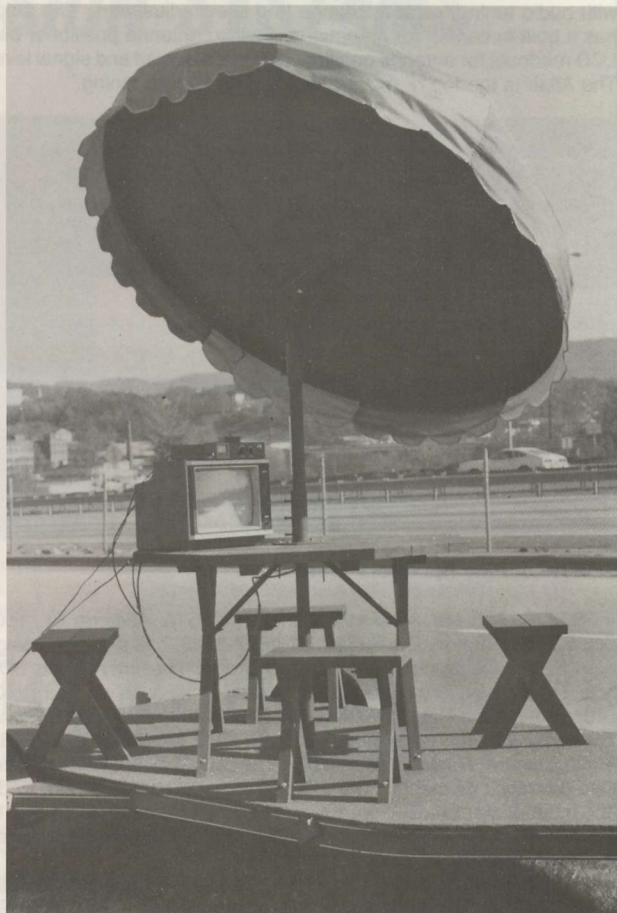
EARTH STATIONS, INC. (Windom, Minnesota) has announced

completion of testing of an 8 foot 'square' TVRO antenna with a built-in microwave 'shroud' to reflect away interfering signals. The SIGMAG II antenna claims a measured gain of 38.4 dB and retails for \$1490.

ECHOSPHERE CORP. (1925 West Dartmouth Av., Englewood, Co. 80110; 303/761-4782 plus other locations) has created 'Echo Flex',TM a specially designed cable created just for TVRO installations. The cable is flexible, is said to 'separate easily,' and is available as one run or one-run dual with either RG-6 or RG-59 type RF cables. The control wires included cover operation of the polarization switching system, receiver/downconverter interconnection plus actuator control and power wiring.

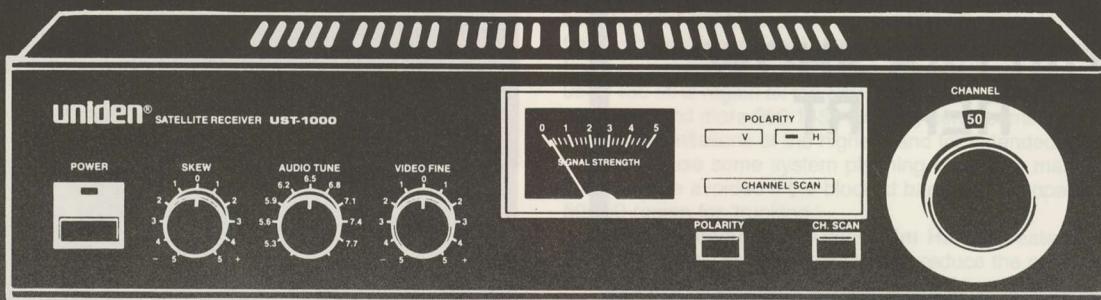
MICRODYNE CORPORATION (P.O. Box 7213, Ocala, Fl. 32672; 904/687-4633) has begun shipment of 1.2 and 1.8 meter antennas which have measured characteristics for 14 GHz uplink/12 GHz downlink as well as 6 GHz uplink and 4 GHz downlink applications. The antennas use the same molded process as the larger Microdyne 5 and 7 meter reflectors and assemble in approximately one hour. The antennas are intended for the teleconferencing, SCPC and data markets.

SOUTHEASTERN VIDEO SYSTEMS, INC. (207 Broadway, Asheville, NC 28806; 704/252-8715) has a clever answer to the often 'objectionable appearance' of a TVRO antenna in a cluttered neighborhood environment. They provide a pair of antennas (6' and 8') which disguise as canopy-covered patio umbrellas complete (as desired) with matching 'furniture' for a backyard look. The antennas are lightweight hand laid fiberglass (41 pounds for 6', 85 pounds for 8 foot) with f/Ds of .395 and .375 respectively. Both are one piece design and



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DALLAS SHOW REPORT

UNexpected

Although show promoter **Rick Schneringer** had been warning exhibitors for several weeks that he anticipated a much bigger crowd than would normally attend a 'regional' show, there were many who were very surprised by the turn-out in Dallas over the November 18-20 show period. The show not only produced crowds, but buyers with money in their hands and business growth on their minds. The general attitude of show exhibitors was that the show was 'one of the best' regional shows held to date, perhaps the best outside of the Las Vegas/Nashville 'national' circuit.

The show setting was elegant; Lowes-Anatole Hotel is one of those Texas-style 'you-have-to-see-it-to-believe-it' places; more than a million square feet inside, distances from one end to the other measured in tenths of a mile, meeting rooms by the hundred. If an industry is judged by the 'class' of its trade show locations, TVRO received an 'A' from first-time attendees for being right up there with the 'Ewings' of Dallas.

Pricing first; the 'soft fall selling season,' reported by most from early September through at least the first of November, was reflected in some of the desperation pricing found in exhibit booths and on antennas in the lot. LNAs: down to \$75 in small quantities for 120 degree, 50 dB units. Receiver plus downconverter plus (120) LNA packages were bottom-ended all over the facility at under \$300 and some approached the \$250 figure if you knew where to look and what to say. Packages consisting of antennas, mounts, plus electronics hovered either side of \$750 for antennas in the 8 and 10 foot range. Of course the baby sized six footers, with electronics, were in the \$500 region. Price was the name of the game.

New next. **Birdview Satellite Communications, Inc.** (315 N. Lindenwood Drive, Olathe, Kansas 66062; 913/829-0400) had the newest of the new; their just under 8 foot 'spoon antenna.' Birdview has spent, according to their annual reports, in excess of \$1,000,000 researching and developing their small-region not-parabolic dish antenna. It is an 'offset-fed' dish which means that it has the general shape of a 'spoon.' The reason one might do this is to gain an advantage over close satellite to satellite spacing (such as the 2 degree spacing between satellites coming), and, to perhaps also reduce antenna noise pick-up in the process. Birdview's 'spoon' attracted plenty of attention because it was new, and it held the promise of being a better way to create usable 4 GHz signals with dishes smaller than ten feet in size. It also attracted attention because it was well promoted and displayed above their booth, its shape and the method of suspending or mounting the feed away from the surface (at the offset-focal point) was 'unusual' and very dramatic. Field-user reports are the next step and it will be interesting to see how long it takes someone to 'knock off' the design assuming it works well enough to be attractive as a knock-off.

New concepts (not yet in production): **Norman Gillaspie** from International Satellite Systems (and the original 'Gillaspie' in receiver design) was talking about a new approach he has to block downconversion. Norman likes the idea of blocking down to 50/550 MHz rather than the more common 270/770 or 450/950, or 950/1450 MHz. His rationale goes like this:



TINY/ but effective. Jim Halley and his Intersat 'Micro-Q' receiver is designed to underprice the off-shore receivers with American parts and labor.

"For very long cable runs, between the downconverter portion and the receiver(s), the cable losses are monstrous in the higher frequency bands. Additionally, amplifiers and splitters and other bits and pieces required to make the extended-distribution sys-



HOMETOWN BOY/ Pat Porter (center) from Starcom was 'in his element' in Dallas arranging for in-booth autograph sessions for the Dallas Cowboy Cheerleaders on day two of the show. Ask Pat why he learned to 'play the bones' (his right hand) sometime.



OFFSET-fed spoon-shaped dish from Birdview Satellite Communications has 'unusual' appearing support system for feed. Dual LNAs and downconverter electronics inside of feed housing.

tems play to distant receiver locations are either poor in quality, or impossible to find, in the higher frequency bands."

Norman likes 50/550 because virtually all of the common CATV hardware available (passive and active equipment) already works in



NOT CRAZY ABOUT THE BOOT/ Shaun Kenny, heading up the BORESIGHT TV production effort, explains to the Nitec people why he believes their 'rain boot' may not hold up in heavy use.

this frequency band. He also likes it because he feels that a system that is installed with a 'long trunk run' could be adapted from the now defacto 950-1450 MHz IF through a converter to 50/550 for long trunk runs. In effect you leave the equipment (DX et al) at 950/1450, but re-block the block to 50/550 for long trunk runs and then when into the area where the signals will attach to demodulators, re-block again back to 950/1450 MHz. This way, the 50/550 region becomes a lower frequency 'trunk band' that allows you to cover greater distances with fewer (or no) amplifiers than you could do if the system stayed in the 950/1450 MHz region all the way through. An interesting concept and with more and more 950/1450 block systems coming on the marketplace, the limitations of the higher band for extended cable runs will certainly cause some system planning engineers many headaches that could be avoided if the blocked band was dropped down to the 50/550 region for 'trunking.'

Intersat introduced the latest **Jim Halley** created receiver; the 'Micro-Q.' Halley has been working to reduce the costs and component count on low-end receivers and his 'Micro' will be an attractive American built target for the off-shore folks to shoot at. The entire receiver is housed in a container that reminds one of the set-top CATV converters. Small; very small. This is a block conversion package and when you learn the pricing (still to be firmed up as we go to press but under \$175 with block downconverter) you will wonder how they do it with American overhead and labor ("magic" comments Halley).

Chaparral's announcement of their 'LNF' (low noise feed) had been anticipated. The unit marries the feed horn, polarization selection system and LNA into a single package. The big advantage is that the installer has fewer wires to run or account for while the disadvantage is that a failure in any segment of the system requires replacement of the entire feed system. 100 of the units are now in the field being tested.

And there was **Nitec**. You may remember that seemingly clever piece of hardware you saw in Nashville from a firm called 'Eagle Prey.' This is a mount and drive which they suggest has 'robotic origins.' The mechanism will point anywhere in the sky which means you can directly adjust both elevation and azimuth for each and every satellite with it. You could also follow 747s across the sky to panic your neighbors. The Nitec people are part of a multi-multi-billion dollar Japanese concern and this is their first product in the TVRO marketplace. It's a very unusual, very professional approach to antenna system control and not inexpensive. It will be of interest to see how the product matures in the marketplace.

SPACE Dealer Board Meet

There are 21 people on the SPACE Dealer Board and they first met to get their affairs in order during the Nashville show. This time 19 showed up for the meeting which was held two days prior to the show opening. Official business first; new officers.

- A) Chairman: **Charlie Brown** of Illinois
- B) Vice Chairman: **King Oberlin** of Indiana
- C) Secretary: **Jeff Manion** of Kansas
- D) Treasurer: **Tom Harrington** of Ohio

These four plus **Wayne Morong** (Maine), **Hoyt Foster** (Texas), **Tom Spessard** (California) and **Anna Visalli** (New Jersey) sit on the full SPACE board of directors. All eight would attend their first 'big board' meeting the following day.

The dealer board definitely had their 'act together.' They spent nearly seven hours grinding through a considerable agenda sorting out their goals and committees for the first year of operation. Dealers are represented on the various 'big board' committees dealing with 'standards,' education, membership, consumer awareness, shows, and finance. In effect, anything the 'big board' does in the future will be done with a dealer-board member sitting right there expressing the will and position of the dealer members.

SPACE's **Chuck Hewitt** reported that after the latest 'membership roster purge' there were 667 dealer members of SPACE. The dealers decided to set some goals for additional membership growth and selected 1,500 total dealer members as a goal tied to the Las Vegas show. Then they went to work, as volunteers, at the Pan-Am SPACE show booth to recruit dealers who do not yet belong to the trade association. At \$95 (per year) per pop, they raced through more than



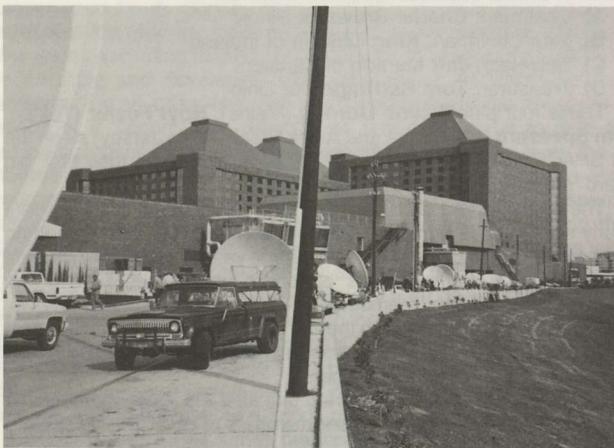
ZONING NEXT/ Terry Emerson, Counsel and Legislative Assistant to Senator Barry Goldwater stands before the board to present greetings from the Senator and outline the 1985 legislative battles his office will carry forth for our industry.

100 new dealer sign-ups the first day of the formal show.

With the Dealer Board meeting, formally, only three times per year, they decided that they should hold a 'retreat' away from the busy-ness of shows during January or February. The concept is that in a two or three day session, with no distractions, the Dealer Board should be able to focus on both the problems and solutions facing the dealers in the industry. Some of the priorities being studied include a 'Dealer Code Of Ethics,' 'Dealer Certification,' the threat of 'State Regulation and State Legislation' and the long-term role of dealers in SPACE itself.

BORESIGHT, the latest entry in the (tele)video 'magazine' field in our industry, did extensive videotaping of the Dealer Board meeting and doubtless will be running excerpts out on Thursday nights (9 PM eastern, TR16, F4) for quite some time. The man behind Boresight, **Shaun Kenny**, comes from a (TVRO) dealer background himself and his efforts to date have dropped \$20,000 in the project. Like most of the previous attempts to create a communications dialogue within the industry, using video and satellite transmission, this one is to be supported by anyone who cares that we continue to communicate about our problems. If you are not watching Boresight routinely, you should be and if you have something to 'say' you should contact Kenny at 201/562-0080.

One of the biggest problems facing the Dealer Board is its own



LOEWS ANATOLE antenna farm stretched down a back alleyway and into a parking lot on south side of building. A 'premium hotel' for a 'premium group.'

funding. The group got seed money from **Bud Ross** of Birdview Communications; \$25,000 to be exact. Bud's firm has been there, when needed, in the past as well having made sizeable cash infusions into SPACE itself back several years ago. But \$25,000 does not a full-year budget make and the dealers are wrestling with how they can create sources of revenue 'independent from' the general SPACE revenues.

SPACE'S 'Big Board' Meet

Industry 'politics' have gotten very old, very fast for most participants in the industry. And it was therefore something of a surprise to see 40 out of 46 Board members on hand for the first meeting of the new board in Dallas.

The agenda was more than full, requiring 10 hours total time to work through. It didn't break up until just after 1:30 AM in the morning so it was no surprise that not everyone remembered, accurately, the full events of the meeting.

The big news first:

A) **J. Terry Emerson**, Counsel and Legislative Assistant to **Senator Barry Goldwater** told the Board that he had been instructed by Senator Goldwater to move ahead, immediately, on two 'fronts' of interest to TVRO people:

- 1) His office was in communication with the folks at PBS over 'viewing rights' (via satellite) for PBS feeds. It seems that



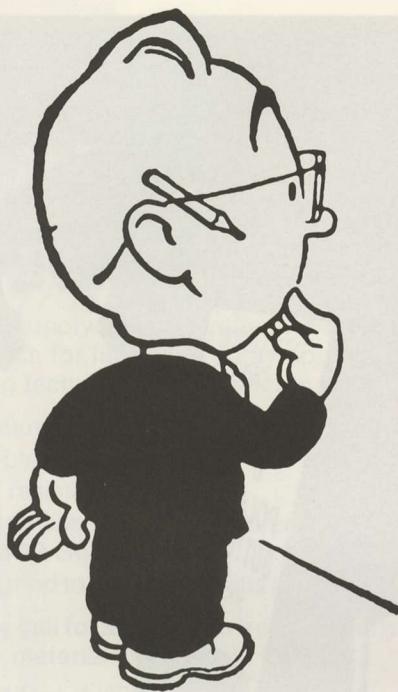
MANAGEABLE SIZE/ the Dealer Board for SPACE took 7 hours to run through its agenda and **BORESIGHT** (video) magazine captured much of this on tape.

the PBS folks may have 'lost touch' with the reality of where their funding comes from, or who their audience is. Of late, they have been making 'official noises' about **not granting** individual TVRO viewers 'rights' to tune-in and watch PBS satellite feeds. Goldwater apparently believes that PBS, unlike ABC/CBS/NBS, because of PBS federal (\$200M per year) funding, should not be denying 'formal viewing rights' to dish owners. Emerson remarked that Goldwater is involved in the approval (or disapproval) of the funding for PBS and he expected "prompt action to the Senator's request for clarification."

PBS's attitude towards TVRO has been muddled but firm for several years. With the recent legislation authorizing the use of most forms of non-scrambled transmissions by private terminal operators, the 'PBS anomaly' has been bothersome. That public funds sustain a large portion of the PBS operations, while PBS continues to deny 'use rights' of its programming to the public that watches it via satellite, has seemed a conflict to many.

Moving on, Emerson also told the board:

- 2) Goldwater's office will **submit legislation** to the U.S. Senate in the next session of Congress dealing with **federal**



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CSD/2 is a great publication. It reaches virtually every active TVRO dealer in the United States, AIRmail, in the middle of each month. And it has the shortest editorial 'turn-around' time of any publication in the field; a true 'rapid-delivery-newsletter.' **BUT** CSD/2 is only half of the story; for on the 1st of each month there is CSD, the oldest and the original TVRO industry trade publication. **If you are receiving only CSD/2**, you are getting only half the issues of CSD; and far less than half the full information you need to be a 'survivor' in today's TVRO dealer world. CSD/2 is a streamlined version of CSD; the grand-daddy of all TVRO publications. CSD leans heavily on the technical and marketing trends of our industry, concentrating on in-depth reports dealing with everything you need to know to survive in today's TVRO dealer-place. **So we urge you** to get the full story, not just the 50% that comes 'easy' in CSD/2. Place your subscription today using the convenient form below or have your Master/Visacard handy and telephone CSD per the instructions below.

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A BOARD/ or an army? When all 40+ members were seated, joined by members from the 'old board' who were not returned to their seats, the ranks swelled substantially.

pre-emption of zoning laws which seek to prohibit the installation and use of TVRO antennas at the local (municipal) level.

In other words, the battle to be able to install antennas will shift from the growing entanglement of towns and cities with anti-TVRO zoning ordinances to Washington. How the legislation, proposed, will be framed, is not yet clear but the objective is; removal of any restrictions which might stand in the way of a consumer installing and enjoying the benefits of a TVRO. SPACE, of course, views this as an optimum solution to the growing array of zoning battles.

Another important item on the agenda involved the proposal to create an industry program to increase 'consumer awareness' of TVRO. With **Winegard**, **Drake**, and **Uniden** already well into consumer advertising campaigns, there is the near unanimous belief that the **entire industry** needs to 'budget' dollars and time to making the average consumer aware of what a TVRO does and how a TVRO is 'good entertainment value.' The board heard a proposal to create a series of print media and television (media) commercials which could then be funded for display in regional publications and on regional and local television. The proposal came from an advertising creator who suggested that a sum of near \$350,000 be spent by the industry to create the 'basic working tools'; the print and television materials. The proposals were impressive and showed 'promise' but no board action was taken in Dallas.



RE-ELECTED/ Paradigm's David Johnson returned to the Board as Treasurer for 1985 (and President in 1986); shown here as his election win is announced.



ANTENNA PRICES dropped and dropped again; some booths made up new (lower priced) signs overnight between days one and two. The first Korean-made (Paracclipse copies) mesh dishes were also on display at prices lower (but not substantially) than the 'original.'

This is a 'two-headed monster' because **first** there must be an 'accord' on the need for such basic materials and approval of their creation. That will have a dollar price tag attached (which the \$350,000 region proposal addressed) but after the materials are created comes the larger dollar problem; raising the bucks necessary to place those print media advertisements or television commercials. The SPACE 'Consumer Awareness' committee, chaired by Janeil's **Bob Dushane**, has their work cut out for themselves.

The technical standards 'marriage' between NASEM and SPACE got a good going over with **Guy Davis** explaining the status of the project. The concept is that this group is creating 'suggested standards' for the entire industry, but that no single manufacturer who finds the final adopted standards disagreeable will be 'forced' to participate. The plan is that after suitable study, the standards will be run by both the NASEM and SPACE boards for approval, and when finally adopted, individual manufacturers will be able to state in their literature that their equipment performs to, or 'meets' the standards adopted. The theory is that if most equipment does meet the minimum standards adopted, those pieces that **do not** will 'stand out' as non-conformers. The theory also suggests that equipment which does **not meet** the minimum standards will ultimately fail in the marketplace because dealers and distributors will be 'wary' of handling equipment which does not meet the standards.

The group working on this project was expanded to include a representative from UL; Underwriter's Laboratory. UL has recently been quite interested in our products and has been involved in a number of inspections of TVRO hardware.

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The SPACE Board meeting contained an interesting mixture of participants. This was the first time, for example, that the following 'groups' were on hand and participating:

- 1) The expanded (12 person) **distributor** group;
- 2) The expanded (8 person) **dealer** group;
- 3) New board members, elected to the board in the recent elections.

The total of these three sub-groups was slightly more than half of the full 46 person board and well over half of those who were on hand for the meeting. In effect, 'newcomers' outnumbered the 'old guard' on a vote for vote basis. And it showed in several votes.

In the past there has been a tendency for board voting to be very one-sided; either everyone approves of some motion, or everyone disapproves. The voting in this instance was far closer and on more than one occasion a matter was decided by but a single vote or two.

This was particularly evident in the selection of officers for SPACE for 1985. A bit of an explanation is in order. Under the newly adopted by-laws, SPACE now selects its board in half-stages each year. That is, half of the board seats will expire in 1985 while the other half will expire in 1986. This is supposed to add stability to the board and add to the maturity of the group since experience breeds knowledge.

At the same time, the recent by-law changes also provide that in the top four elected posts, the officers will be 'upward mobile' each year. **This year** all four spots were open. Selected were a Chairman, a President, a Treasurer and a Secretary. Under the new by-laws, in 1985 the President of 1984 will become the Chairman, the Treasurer of 1984 will become the President and the Secretary of 1984 will become the Treasurer. Thus **in 1985**, only one new officer will be elected; to fill the Secretary post (and that person will in turn move upward in 1986 and after).

This meant 1984, a transition year, was especially important because this was the first (and last) time that the board would be selecting not one but four 'Chairmen.'

The new by-laws further provide that to be an officer the 'candidate' must have been on the board for at least one previous year, or have been 'pioneer' in the previous year. Outgoing officers were Peter Dalton (ex-KLM), Ron Wysong (R.L. Drake) and Bob Behar (Hero). All of the board members who qualified to be an officer were asked to stand-up. Those who were seeking a post as officers were asked to stay standing and the balance sat down. The ranks thinned out in a hurry and here is what happened:

- 1) **Chairman.** Nominated were Taylor Howard, Ted Anderson (Automation Techniques) and Bud Ross (Birdview). Elected was **H. Taylor Howard**.
- 2) **President.** Nominated were Ted Anderson, Ron Wysong, and Bud Ross. Elected was **Bud Ross**.
- 3) **Treasurer.** Nominated were David Johnson (Paradigm), Bob Dushane (Janeil), Bob Behar (Hero) and Ted Anderson. Elected was **David Johnson**.
- 4) **Secretary.** Nominated were Ted Anderson, Bob Dushane and Bob Behar. Elected was **Ted Anderson**.

While the officers are important, the real affairs of the trade association are run **between** board meetings by the Executive Committee. In the past this committee has been made up of the four officers plus the VP and General Counsel, **Rick Brown**. Recent by-law changes expanded the EXCO to seven voting members plus VP's Brown and (Chuck) Hewitt as non-voting members. The EXCO still consists of the four elected officers but adds a qualified Dealer Board member (**King Oberlin** of Indiana was selected), a qualified distributor board member (**Stan Leaf** of Oregon was selected) and a representative from the 'Pioneer Group' on the board. Nominees for the seventh and last seat boiled down to those who were qualified but who had not been elected to the officer spots. Bob Behar, Ron Wysong and Bob Dushane ended up in the running with Dushane eliminated in the first round of voting. In the second round Wysong and Behar came out tied and thus the tie was broken by a 'flip of a coin.' **Bob Behar** became the seventh member of EXCO with Wysong and Dushane automatic 'alternates' should there be a vacancy on EXCO at any meeting during the year.

The present structure of the SPACE board, and the selection process for officers, has come with a 'price.' Summer electioneering was 'heated' and there had been a two-way race between 'the old

guard' and a group that called itself 'Friends Of SPACE.' A high percentage of the new members on the board had been 'Friends Of SPACE' supporters.

During the board meeting several 'strong voices' urged changes in the way the board was structured. Newer board members such as **Hans Giner** (Luxor) and **Doug Dehnert** (USS/Maspro) urged that the board consider the structuring one more time in an attempt to expand the support of SPACE at all levels. **Ed Grotsky** (Arunta) proposed a motion that the trade association modify the by-law section which restricted the officer posts to those who had served on the board for a full year or been pioneers for a full year. The motion lost and while there seemed to be a general agreement immediately after the meeting that the trade association had made large strides towards being truly representative of all factions of the young industry, it was only a matter of days before some were re-urging the reconsideration of the Grotsky proposal.

In particular, the trade association's 'finances' bothered many of those who were sitting on the board for the first time. The trade association, according to figures revealed at the board meeting, is operating 'below budget' at the present time. However, it is also below expectations for cash receipts and growth. In effect, less is being spent than planned but less is coming in as well.

After considerable debate the group decided (less than unanimously) to assess all Pioneer members by a hefty four-figure amount on a one-time basis, and, raise Pioneer level monthly dues to \$500. Johnson, Dehnert and Giner argued that increasing the cost of participation might be necessary but they felt it was inappropriate to raise the cost of being a SPACE member if there was no concurrent attempt to reduce the expenses. **Donald Berg** (Channel Master) and **Clyde Washburn** (Earth Terminals) argued the opposite viewpoint with Berg noting "The budget is as low as we dare make it; there is no trimming left to be done."

Others were not so sure. Calculations revealed, for example, that the cost of publishing the (scheduled monthly) SATVISION publication was averaging around \$90 per member per year (or \$7.50 per copy, each) and more than \$130,000 per year total. It would turn out that the 'short-fall' in cash, to be offset by a one-time 'assessment' of the Pioneer members for a 'four-figure-donation' each, would be almost exactly the same as the annual 'subsidy' for SATVISION. More study was needed and within twenty-four hours of the closing out of the marathon ten-hour session, many members of the board were huddling about how to get a better handle on the finances.

Finally, there was the matter of the next trade show(s). Under the terms of the settlement between STTI and SPACE, the two trade show operators would share in the operation (and revenues) from the (recent) Nashville gathering, and then starting in 1985 the two would jointly operate the annual (spring) Las Vegas show (March 31, April 1-2 in 1985). And there would be two more shows in 1985; a SPACE stand-alone show in June or July, and the STTI 'Nashville bash' over Labor Day weekend. The board was presented with a proposal that had two parts:

- 1) Would the board agree to **all 1985 shows** being 'joint shows' with SPACE and STTI sharing the revenues?
- 2) Would the board approve the (Behar) proposed Orlando (Florida) location for early July?

The first part passed with ease and that simply meant that at least through 1985, all three shows would be jointly run by STTI and SPACE. The second part had tougher sledding.

Behar presented a formal presentation for Orlando painting it as a 'family vacation' weekend. Hotel rates as low as \$29 a night were part of the attraction. Many board members were 'nervous' however over the dates being suggested (4th of July weekend was one of two options), the well-known Florida heat and humidity in July, and the concept that a trade show was turning into a family vacation trip. There was only one additional site open for consideration, and that was Tulsa, Oklahoma.

In the end, **Tulsa won** and the mid-year trade show for the industry will now be scheduled for the period **June 21-24**, in Tulsa, with both STTI and SPACE putting on the joint show. Nashville, Labor Day weekend, will **also be** a joint show and many felt that the era of three shows per year was rapidly coming to a close.

HOW TO PITCH 'Y.A.P.' TERMINALS TO SCHOOLS

GETTING Started

As CSD/2 reported in our November 15th issue, the Young Astronaut Program is the creation of a federal (government) task force working at the suggestion of media columnist **Jack Anderson**. The program was conceived to fill a void in the American educational system; a void that left students with interests in matters scientific or physical no real place to turn to explore their interests.

Anderson, himself the father of nine, recognized that a pre-teen or early-teen student was being exposed to a multitude of pursuits. Many were taking 'the easy route' and dis-regarding traditional math and science courses because they lacked the 'media-snap' associated with other pursuits. Anderson believed that if a little bit of showmanship could be added to the pursuit of math, science and the rapid growth of space exploration, many hundreds of thousands of youths could be attracted to these areas of interest.

The **Young Astronaut Program** is being funded by private (ie. non-government) dollars. Anderson was able to attract the interest of **The White House** in the project, and The White House in turn was able to recruit volunteers from private industry to study the problem and put the program itself together. However, the short and long term involvement of the federal government in the project is minimal and if the program is to succeed, it will be because initiative from the 'private sector' has grasped the concept and done something with it.

President Reagan announced the start-up of the Young Astronaut Program (YAP) in a White House Ceremony on October 17th (see **CSD for November 1st**). The program has his support and the support of his administration. At this stage in the development of the program, the pressures to make it work fall upon those private concerns who have pledged \$250,000 over a ten year period (\$25,000 per year) to backing 'YAP.' Some of the corporations who have made that commitment to date include:

- 1) Commodore Computers
- 2) Discovery Magazine (Time/Life)
- 3) Eaton Corporation
- 4) Intersat
- 5) Martin Marietta
- 6) M&M/ Mars
- 7) Pepsi
- 8) Rockwell
- 9) Safeway

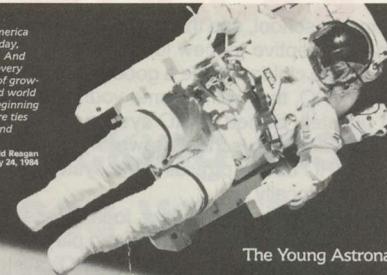
Approximately twenty corporate sponsors are expected 'on line' by the 1st of the year and that will provide an initial 'seeding fund' of at least \$5,000,000 to get the program started.

Administration of the program will be through offices established in Washington, D.C. (write to **T. Wendall Butler**, Executive Director, **Young Astronaut Program, 1015 15th Street NW, Suite 905, Washington, DC 20005; 202/682-1984**). During the next 90 days the project will be in a rapid growth phase where most of the emphasis will be on signing up individual school chapters to become part of the Young Astronaut Program.

Young Astronaut Program **Chapters** can be sponsored by any group, or individual, or school. The chapters themselves will most

"Five centuries ago, America was the new world. Today, space is the new world. And just as Columbus' discovery marked the beginning of growing ties between the old world and the new, we are beginning to create more and more ties between planet earth and outer space."

President Ronald Reagan
February 24, 1984



The Young Astronaut Program

What is the Young Astronaut Program?

To elevate the interest and skills of American youth in mathematics, science and technology, the Young Astronaut Program is designed to help America meet the challenges and opportunities of the space age.

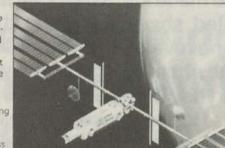
Through the excitement of the United States Space Program, thousands of Young Astronaut Chapters will be formed over the next year from among the 75,000 elementary and junior high schools across the country. The U.S. Space Program's manned and unmanned missions will provide the dramatic focus for each Chapter's activities.

Through special curricula materials and creative activities, the Young Astronaut Program hopes to instill a spirit of scientific adventure in our youth as they enter a working world of high technology.

What does the Young Astronaut Program Seek to Accomplish?

Through local chapters, the Young Astronaut Program:

- To stimulate the study of science, math and technology by American youth.
- To increase young Americans' awareness of and appreciation for the United States Space Program.
- To develop a more technologically proficient work force, enabling the United States to maintain leadership in the high technology world of the future.



To provide young Americans with the basic information and knowledge necessary for them to begin preparation for the infinite variety of aerospace-related careers that will be available.

- To provide communities, parents, educators, schools, industry, civic groups and youth organizations an opportunity to participate in an important national program.

What Activities are Planned for the Young Astronaut Program Beyond Its Launch?

In the future as the Young Astronaut Program grows, it will provide a range of activities such as—

- Mentoring programs for Young Astronauts and other students, particularly those interested in science and mathematics.
- A national newsletter highlighting the space program and activities of other Chapters.
- Curriculum materials highlighting space science, to supplement classroom curricula.
- Linkages to national space-related programs for satellite communications and for increasing the availability of education resources for teachers.
- Access to a national computer bank containing programs, projects and information about space.
- Special Young Astronaut contests—such as "design a flag" for children and "most creative curriculum materials" for teachers—awarded by unique prizes and awards.
- Specially-designed Young Astronaut logos, insignias, and buttons for each Chapter.
- Listings of space-related products and organizations of interest to Chapters.
- Sponsored trips, lectures, camps and other space-related activities.
- Special merit programs for unique contributions to science by members of the Young Astronaut Program.
- Many others will be announced.

YOUNG ASTRONAUT PROGRAM flier has been mailed to an estimated 75,000 public and private schools already, inviting their participation.

often be affiliated with a school and there will be at least one (often science or math) teacher serving as a chapter advisor to the group. A local chapter becomes a part of the Young Astronaut Program by completing an application form and sending it with \$20 to the Washington headquarters. A package of materials, describing the program and providing the initial application form for a chapter, is available from YAP at the address cited above.

The educational pursuits and goals of the program aside, briefly, the interests of the local TVRO dealer are closely parallel to the program itself. The very nature of the program ('astronautics') focuses attention on the exploration and development of 'space.' No single retail business in the United States has as much 'focus on space' as TVRO system sales. The two are, indeed, 'tailor made for one another.'

There are two ways to look at the program and how it will benefit you, the TVRO system retailer:

- 1) Obviously, each school in your retail-trade area represents an opportunity for a 'system sale' since ownership and use of a terminal is an important part of the program itself.
- 2) However, perhaps more important than the sale of some quantity of terminals to local school systems is the public exposure each such terminal will offer to the TVRO retailer's business, and the concept of owning and enjoying a TVRO 'at home.'

The industry has been concerned for most of 1984 that there is a lack of 'consumer awareness' for the systems we engineer and sell. Placing some quantity of new terminals at public (and private) schools, during 1985 is one of the best 'exposure moves' the industry can have in the coming year.

Some numbers.

A terminal in a public school will be exposed to a large percentage

of the students in that school, and through the students, their families. Children are more receptive to 'new ideas' and 'new concepts' than their parents and if the children have a good grasp of the benefits and advantages of a TVRO, they will become your 'little salespeople' for the concept of privately owned TVRO systems.

A terminal, installed at a school, is worthy of considerable 'free publicity' for the TVRO dealer providing the system. Such a terminal should be supported locally by:

- 1) An initial announcement to the local press explaining the Young Astronaut Program, and the part played in that program by the school's "Space Terminal" (TVRO) system.
- 2) A follow-up story which includes one or more photos of the system being installed, with school administrator and student involvement.

The installation should be a 'project' for school personnel, and the students. Rather than trying to break speed records with the installation, the system should be made into a day-long project. Every student should be given a printed sheet explaining the Young Astronaut Program, backed up on the reverse side with a subtle pitch for private ownership of TVROs. **The sheet will go home with the student** and many parents will read it. They will be exposed, with the enthusiasm of their sons and daughters, to the concept of 'television from space.'

- 3) Once the system is installed, a Saturday should be set-aside with the assistance and cooperation of the local school officials or the faculty advisor heading up the school's program for a

student-parent 'show and tell.'

The dealer should set up his display around the dish and be prepared to give brief explanations of what the system is and how it works. The role of the terminal, inter-connecting each school to YAP 'Headquarters,' should be properly explained. This in turn should be supported with additional handout sheets which focus on the wide range of programming available to families who own a TVRO.

Unlike county and state fairs and other commercial display opportunities, this one is totally in the hands of the dealer. He has a 'captive audience' of interested people who have been brought to the open house by the children who are anxious to have their parents see, touch and understand the TVRO terminal. There is no better opportunity to acquaint people with the system!

- 4) The dealer, working with the school, should opt to become a 'permanent technical advisor' to the school's system. This means he will do more than simply maintain the system; he will be available to appear at class lectures and to direct the faculty advisor and students towards exciting opportunities outside of the immediate YAP project with the TVRO terminal.

Working with the faculty advisor (remember, it is the advisor's job to see that the project works for the **best interests of the school** and the dealer must recognize that the school's best interests do not always fit exactly the best interests of the dealer!), the dealer/technical advisor' can find many opportunities each week in his programming guide where the terminal could be used by the community for a



RECOGNIZES

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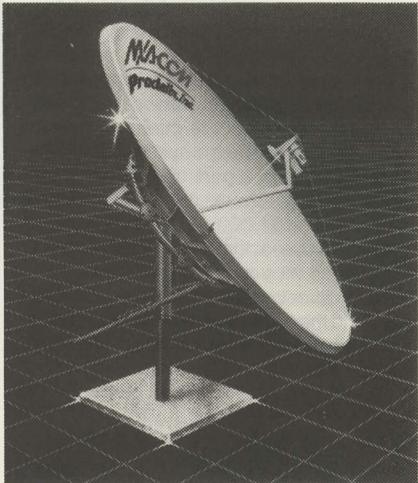
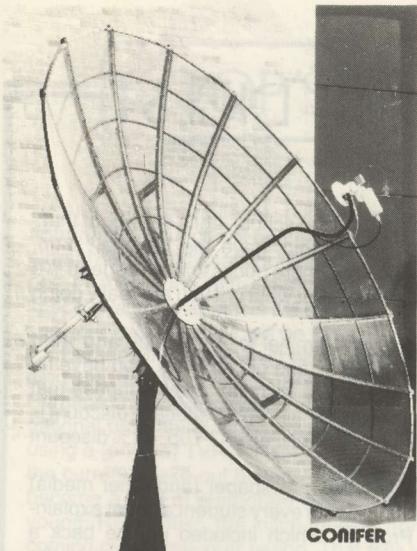
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broader base than the YAP project.

Examples?

- 1) In an agricultural community, the special Saturday morning telecasts directed at farmers and ranchers provide an opportunity for a 'farm pot-luck breakfast' in the school, built around enjoying the content of the farm-ag programs directed at farmers.
- 2) Special sporting events, available locally only on satellite, keyed to the school's coach or athletic department. If the terminal is in place at the school, make use of it!
- 3) Special educational feeds, carried on the PBS Westar 4 transponders but not released through the local PBS affiliates could be brought to the attention of the teachers or classroom groups.

Remember, **you**, the dealer, **are the expert** in what the terminal does and what it offers. You will gain maximum interest in owning terminals in a community by spreading your knowledge of what satellite services offer to viewers, finding somebody associated with the school who has an interest in some specialized programming (such as Spanish or French for those teachers who teach those subjects) and then demonstrating the programming capability to the appropriate school teacher or faculty member.

The needs and aspirations of a school dove-tail perfectly with the expanded information and data sources available on satellite; and the Young Astronaut Program provides the perfect 'reason' to get a terminal into the school. Once in place, it is up to the dealer to provide the proper direction to the many different interest groups in the school so that each becomes as excited about the terminal and what it offers as the science or math teacher is with the Young Astronaut Program.

FINDING Backing Locally

Information from the Young Astronaut Program headquarters suggests that few schools will need to **buy** their own TVRO; that in the majority of cases, a local business or group (i.e. such as Kiwanis) will

pay for the terminal and 'donate' it to the school. Let's talk about that.

Suppose **you**, the TVRO dealership, gave the terminal? Yup, there goes a bunch of bucks; possibly more bucks than you spend in a month on advertising. Or six months. But what is it you are really doing here?

First of all, if you donated **one** terminal to the school, **and then sold ten terminals** as a result of that one gift terminal, you have (in effect) just sold ten terminals at a 10% discount. Now suppose that number was twenty-sold for one given? Now your effective discount is 5% per terminal. Or 100 terminals sold for 1 given? Yup, a 1% discount per sold terminal. Not a bad trade!

Now, if you gained all of the free newspaper (and other media) advertising value, if you sent home with every student a sheet explaining the Young Astronaut Program which included on the back a tastefully done explanation of your firm (the one that 'donated' the terminal to the school, and what you do), and you had the school holding open houses to see your donated terminal 'play,' now what is the **real cost** to you?

The answer probably is that you cannot measure it, but you know instinctively that by being 'exposed' to **every family** in the school district with school age children, you have walked away with something of a marketing coup. Now, if one sheet of paper home with the kids is good, how about several?

- 1) Locally, for probably 10 cents a copy, you can prepare a monthly or quarterly '(School Name) Young Astronaut Program Newsletter.' A single sheet explaining the activities of the local YAP chapter, backed up (again) with your promotional message. If the first message escapes the attention of the parents, the second one will hit home. Especially if the student is wearing a **Young Astronaut Patch** received from the school, through the program, and if the student comes home telling stories about an "exciting Shuttle space-walk" seen at school that day **through the YAP terminal**.

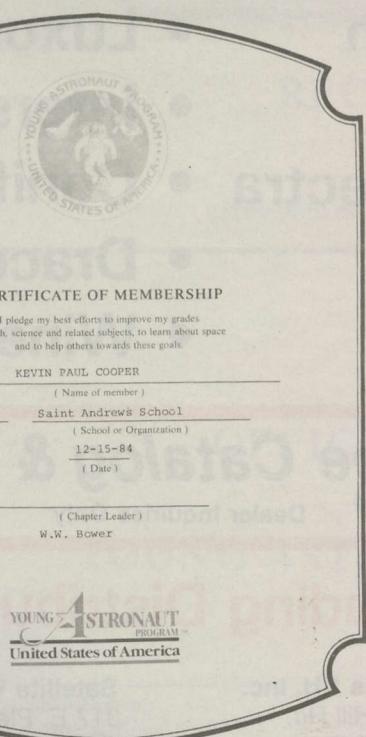
The marketing opportunity presented to the TVRO dealer is far more than simply the chance to sell a terminal to one or a dozen schools; it is a 'tool' to work the TVRO dealership into the mainstream of the community life through the school system and the children.

Even if you cannot justify making the complete terminal a 'donated gift' from the retail business (there are many schools and many terminals involved, in your marketing area), you can discount the terminal so that your business becomes a **partial donor** or sponsor.

Let's say you have a \$2,995 retail (installed) terminal, with motor drive, and you want to be an active participant in the system's donation to the school. You recognize that by being a **part** of the donating or sponsoring effort, you will have an 'inside track' on the promotional value of the project. So you 'give the first \$1,000' value of the terminal to the school, and go looking for one or two additional local sponsors to split the remaining \$2,000 of the price. You are giving up **your profit**, but not any of your terminal **cost**. In effect, you are trading profit on this system for future system sales. And the terminal is not costing you any real 'out-of-pocket' money because it is doubtful the system's normal profit would be as valuable as the one-third sponsorship of the system package to the school. In effect, you recover your direct costs and still receive substantial promotional and display value for the 'gift.'

The most important factor to keep in mind is that by becoming a part of the YAP project, your real opportunity is not in the instant terminal gifted or partially donated by your business; nor in the sale of one or a handful of systems which might happen because your dealership is more aggressive than others in the area. The real value is that you have created a conduit into the homes of your community, through the children, and you have created a mechanism (the TVRO system) which can become an important and aggressive promotional tool for your retail dealership in the months and years to come.

The Young Astronaut Program, through the national sponsors such as Pepsi, will be creating their own 'national promotional campaigns' in the year(s) ahead. When every six-pack of Pepsi sold carries a message for and about the Young Astronaut Program into homes all over town, don't you want **your own dealership** to be a **part of** that program? Wouldn't you like the opportunity to 'key-off' the Pepsi advertising, to be recognized as a part of the same (national) project? Of course you would!



CERTIFICATE OF MEMBERSHIP along with patches for clothing are issued to each youngster participating.

And while the national sponsors are doing 'their thing,' the Young Astronaut's Council will be creating awards programs for the youngsters, holding national contests and one-day selecting and sending one of the young astronauts into 'space' as the first 'student-in-space.' Naturally all of this will create local excitement for the program, and your own business will be the ongoing focus of that excitement.

Perhaps there will never be a better program for TVRO dealers to gain the respect, support and admiration of the local community. Perhaps there will never be a better promoted and better funded national program that centers around the advantages of owning and using a (private) TVRO. Perhaps you will be the dealer who survives the current shake-out because you had the wisdom and foresight to become a part of a program when both it, and your business, were young. Remember, the initial funding from the national sponsors is coming over a ten-year period. That tells you that somebody is planning far into the future for the Young Astronaut Program just as you

should be planning your own business future.

FINAL/First Steps

Go back to the opening paragraphs of this report and find the address of the Young Astronaut Program. Call, or write for the 'Young Astronaut Chapter Kit.' While it is coming, go and visit with your school administrators and using the information here plus that in the November 15th issue of **CSD/2** (our interview with Jim Coyne), explain the program to the school administrators.

Within our industry, you can contact the **Intersat Corporation** (Suite 300, 1000 Lake Saint Louis Blvd., Lake St. Louis, Mo. 63367; 800/851-5087) to request their special 'Satellite Education Terminal' (S.E.T.) information packet. Get involved, today, before another aggressive dealer in your area has all of the schools 'sewn up.' Somebody is going to insure their own future in your area with this program and there is no reason why it should not be you!

FIBERGLASS 'KINGS' ODOM + DEHNERT (Conclusion)

In our October 15th issue of **CSD/2**, we began a dialogue between USS's **Doug Dehnert** and Odom Antenna's **Randall Odom**. This dialogue continued in our November 15th issue and concludes here, this month. Both Odom and Dehnert are in the fiberglass antenna business. Both began early (1979-1980) to produce antennas for the home TVRO field. Both have succeeded where dozens of others have failed and both have faced, and beaten adversity along the way. USS produces a relatively low volume of highly regarded fiberglass dishes in the 10 to 25 foot region. Their 25 foot antenna is the largest fiberglass antenna in production in the world today. Odom produces antennas between 8 and 20 feet in size but concentrates on 10 and 12 foot versions. Odom has a new (mid-1984) production facility which is the first, and largest, (automated) fiberglass production facility in the world turning out hand-laminated (microwave) parabolic antennas. Odom's volume capacity is more than twenty times that of USS per month.

CSD: Mounts. You build your own mounts in a separate plant facility, Randall. Doug builds his own mounts. **What's wrong with the typical mounts** on the cheaper antennas; what are the mistakes they make?

ODOM: "When you stick a cheap mount, under designed, beneath a cheap antenna surface, you end up with a cheaper piece of (expletive deleted)."

DEHNERT: "The most common problem I see out there on the lot is the polar mount design. They start with an hour axis and they get the 'points' too close. You can't design a 10 foot or a 12 foot antenna with the centers close together and expect the antenna to track the belt."

ODOM: "And they use cheap jacks and poor quality actuators and that cheats the customer or the new dealer who is not smart enough to recognize the advantages to a good design."

DEHNERT: "This may get Randall a little ticked-off, but you can't put a 10 foot antenna on a 3 inch pipe or a 4 inch pipe and then tell somebody it will honestly take a 100 mile per hour wind and survive. It

takes at least a 5 inch pipe to support that kind of wind load. And the 5 inch pipe had better be filled with concrete."

ODOM: "You are exactly right. But the dealers don't give you a choice! I have to sell a 3 or 4 inch pole to be competitive with other suppliers. Somebody out there selling a \$100 mount and me sitting there with a \$175 mount . . . it is all I can do to sell it for \$175. But there's one thing about it; I won't use a damn pole with a 1/16th inch thick wall thickness. The pipe I use has the same strength rating as a 5 inch diameter pipe with a 3/32nd wall thickness. Now you can't totally substitute strength for size or diameter when it comes to rigidity; there is no way the two are the same."

DEHNERT: "The majority of the manufacturers get away with this thin wall pipe because there are very few of these antennas ever installed which are ever subjected to 100 mile per hour winds. They get 'stuck in behind' or 'down in' or 'next to' where there is a wind break that helps protect the antennas from the full force of the wind. Now you go out on this lot where they told us there are 330 antennas . . . and I'd make the statement that if a true, direct force, 80 mile per hour wind came through here, not three of those would survive. Some would bend, some would break, some would tip over. And that is assuming they were all installed right; the show antennas are all installed on temporary stands and it would take far less than 80 miles per hour, as we found out in Las Vegas, to level the lot here."

ODOM: "You are looking at antennas alone, or antennas and mounts?"

DEHNERT: "Antennas plus mounts . . ."

ODOM: "You are probably right about that. But the antenna itself, there are probably quite a few out here that would withstand the 80 mile per hour wind if they had the proper mount under them. The thing I am telling you is this: I cannot be in my segment of the industry by building the \$300 mount that needs to be built, and compete in the dealer's mind with a \$150 mount. So I've got to build a \$150 mount too."

DEHNERT: "And that's one of the main reasons we have not pushed our production for antennas. We have a logistics problem I got stuck in. I wound up in Thief River Falls, Minnesota because Arctic went 'upside down' and I owned a home there and with the economy depressed I couldn't get out of the property. I had to stay there and try to make a living. Eventually it may get to the point where it doesn't make any difference. But back in 1979, that was a big consideration. I had a family to support. So I went the other way; we do build a commercial quality mount that is hot-dip galvanized which will survive a 125 mile per hour wind, it will maintain pointing accuracy to about 85 miles per hour . . ."

ODOM: "I've got a mount design, over there on the lot which **Lowrance** is using, which made me pretty happy. One time this mount design went through a hurricane and another time it went through a tornado. In both cases the house left and the antenna was still sitting there! When they built the house back, they only had to replace the feed system(s) and hook back up to the antenna(s). I've got another one that has turned over on the highway five or six times at 60 miles

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FIBERGLASS/ continued from page 19

per hour. The antenna is dinged and cracked and the hat ring is half off of it. But **Dave Olsen** showed the fight at the Astrodome on the damn thing! Take one of those mesh antennas and roll it over at 60 miles per hour on the freeway and then see if you can use it to show a fight at the Astrodome."

DEHNERT: "We've got a 3.8 meter at a race track in Las Vegas and when they originally set it up on the roof they ran out of daylight and threw a couple of sand bags across the base to hold it down. Overnight it blew two stories off the roof down on the concrete parking lot. They took it back up on the roof, put it up again, tied it down right, and it's been working just fine for several years."

ODOM: "I've been wanting to take one of our antennas to a show like this where there is perhaps a 25 story hotel and throw that antenna off the roof of the damn hotel! And then I'd put it 'on the air' and show it. I was talking with **Rick Schneringer** about this and it occurred to me that you can't be sure it won't act like a 'leaf' on the way down and change course before it hits the ground. Can't you just see a 10 foot antenna busting through a window on the 12th floor and lodging inside of somebody's room! But I tell you what I AM going to do; I'll take one of our antennas up 400 feet or so in a helicopter and then drop it. We'll videotape it floating or falling all the way to the ground and I'll show the tape in our booth. Then I'll stick it up on a mount outside at shows and play pictures off of it . . ."

DEHNERT: "...OK MESH BUILDERS . . . try this!!!"

ODOM: "There is still something to be said for a quality fiber-glass antenna."

DEHNERT: "Yes, but we have to be bright enough to recognize that there are advantages to mesh as well. I'll tell you right now, I am doing a lot of research on a 'semi-transparent' antenna. There is a place for that type of product. I don't think the best designs have matured yet in this field, most of what I see are simply rip-offs of the Paraclipse or some slight variation where somebody has tried to cheapen what David Johnson did the best way he knew how."

ODOM: "Let me ask you a question that has been bothering me for nearly two years now. I sat down and made up some tooling for a six and a half foot antenna. It is excellent tooling and I am very proud of it. Then I got to looking at what the compromises were with antennas this small, in system performance, and I said 'Hell, are we going to get better so we can sell systems this size with a clear conscience or are we just whistling Dixie? Is the electronics not going to get any better, is the 2 degree spacing going to hurt smaller antennas, is the satellite's getting older going to hurt'???"

DEHNERT: "All of the above . . ."

ODOM: "I sit back and I build antennas and antenna systems the best way I can figure out. I don't do a lot of reading and I don't give a damn about the electronics."



ODOM: "Just how accurate are (antenna) range tests?"

DEHNERT: "I got into the (Maspro) electronics because I couldn't buy the type of receiver features and quality that I wanted. I spent a lot of time in Japan and I said 'Here, build me a receiver like this' and they laughed me out of their offices. But I finally found somebody who shared my concerns for quality and design features and I got into the electronics business. **But six and a half foot?** Yes, we are eventually going to get to 2 degree spacing. And at that point a six and a half foot doesn't play because the main beam is looking at two or worse than that, **three satellites** at the same time. As far as the electronics getting better, you are self-limited as the antenna gets smaller by sky and earth noise. Each antenna has a noise temperature, just like an LNA. And once you get down to about an 8 foot antenna, you are limited not by the noise of the LNA and downconverter but by the noise of the antenna and feed. It doesn't do any good to put a lower noise front end, or LNA, out there on an antenna which has a noise figure of its own that is so high that the antenna noise is going to drown out the weaker signals anyhow. We built an 8 foot for awhile because we had a big distributor that wanted this size."

ODOM: "We sell quite a few 8 foot . . ."

DEHNERT: "Yeh, but do you have an 8 foot **at your house?** Hell, I put a 16 foot at my house because I want the best possible picture on every transponder on every satellite . . ."

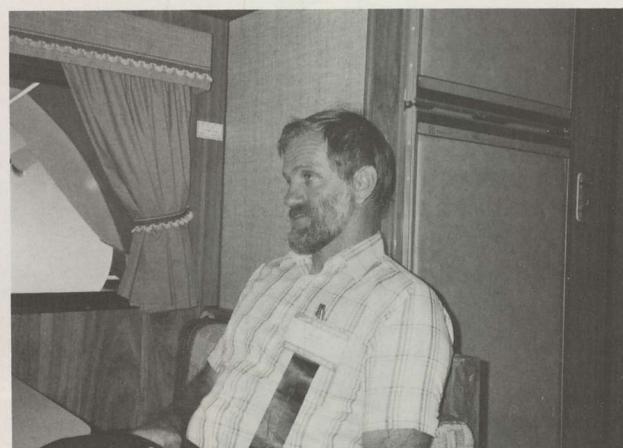
ODOM: "At my house I have a ten foot, a Drake receiver and a Tracker Four . . ."

DEHNERT: "And then there is satellite deterioration. I think the six foot people are in a world of hurt and the 8 foot people in most parts of the country are going to have problems they won't like. This satellite jumping has got to quit; they can't afford to keep moving satellites and systems around. There are going to be too many of these dishes out there to keep this yearly moving routine up much longer."

ODOM: "I won't guarantee anything I've got to handle two degree spacing and I never will until two degree spacing is here and I can see with my own eyes that it is not going to cause me problems. And that includes our 10 foot models. But I will guarantee this, in writing: 'If anybody else's 10 foot antenna will handle 2 degree spacing, mine will too!'. And if anybody else's 8 foot will handle 2 degree spacing, mine will as well. You see, I believe in my product and I always have. But we don't have 2 degree spacing yet and until we do . . ."

DEHNERT: "No, in reality you are wrong. You can measure two degree spacing performance now. Down at Coop's island on Provo. If you are as far east as he is and you look back across the orbit belt from the far eastern end, off to the side and down towards the equator like the CSD Lab is, you have two degree spacing right now (editor's note: 2.1 degrees between F3R and Galaxy 1)."

CSD: Talk about growth and expansion. By your own admission, both of you started out having to build a single antenna, then run out and sell it and install it before you could come back and build another



DEHNERT: "You can make them say anything you want them to . . ."

one. You are both obviously past that stage now.

DEHNERT: "You reach a point where you realize that all of the money you have made, if you have made any, is stacked up in inventory and tooling. When we branched out into electronics (**Maspro** receiver line) we learned a new meaning for the word 'inventory.' We never had much of an antenna inventory; they always seemed to sell at about the same rate we built them, no matter how many we built."

ODOM: "That's the way mine is too. I guess one of the hardest things in business is cash flow. I established a one hundred thousand dollar cash flow credit line at our bank in the fall of 1983. One year later we are shipping \$1.1M a month in product; now that's tough with a \$100,000 line of credit! Of course since that time we have increased our line of credit, but it is a good example of how fast things change in this business and how fast the business is growing. I'm glad, looking back, that it happened to me the way it did. If I had made a couple of million dollars, back there in 80 and 81 when this business started and I was building antennas for H and R, I couldn't have handled it. I would have been the biggest (expletive deleted) in the world!"

DEHNERT: "There's a lot of people out there who want to put money into this business, and I've had more offers than I can chase away. But they also want to take the whole god-damn thing when they do that and I didn't go out and bust my (expletive deleted) for several winters and have itchy underwear and all that other good stuff to let some banker walk in and skim my cream."

ODOM: "I've got a couple of young partners who I think are as much responsible for the place this business is today as I am. I'd much rather have 50% of a company doing \$1M a month than I would owning 100% of a company doing \$100,000 a month."

DEHNERT: "This is such a fast changing business that you have to be able to see a year or two down the road. Right now, I am approving final designs for a full line of Ku band equipment, for example, as well as a complete line of commercial gear for C band. I insist that we own all of the tooling for these products and when you do that, you have to keep a bunch of money tied up in the initial design and proto-type costs."

ODOM: "Getting our new plant cranked up this year has been a major capital expense. We brought the new (automated) plant on line when sales were going into their summer slump and we have had to wait until now, the fall selling season, to really find out how good the automated facility would be. With the sales written here in Nashville, I can go back now and crank it open full bore. But it's been tough carrying the cost of the new plant all summer, until now, without the orders to really support the new plant."

DEHNERT: "There's a turn around here, and I've seen it coming for several months. It takes a show like this to bring people out who tell you what they really want in say electronic products. I'm tickled to death to have people come up and tell us they are tired of cheap receivers that don't work or antennas that warp and bend after they've been up for six months. We've always been high priced because we always built our stuff the best way we knew how. But the market had turned away from quality, in antennas and electronics, for about a year here and it is just now coming back around."

CSD: Is the industry changing?

DEHNERT: "We are in an industry that is glamorous. There is a certain amount of magic to satellite TV and everyone wants to jump on the bandwagon and be a part of the 'magic show.' It doesn't matter that they are not qualified, or that they don't want to take the time to become qualified; just send them an antenna and a receiver and an LNA and they are part of the 'magic.' That's all horse feathers. Every (expletive deleted) who can lay up fiberglass in his garage is building antennas and every (expletive deleted) who can bend a sheet of metal is building antennas. . . ."

CSD: And the electronics?

DEHNERT: "Oh, that's almost worse than the antenna story. When the Japanese 12 gigahertz DBS program went upside down (the Japanese satellite lost two of its three transponders earlier this year-**editor**) there were tons of microwave parts scattered all over the Far East waiting to be used in Ku band receivers. Those parts have been re-funnels into C band receivers and just here in Nashville I

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counted six brand new Korean receiver brand names. The junk peddlers out of the Orient are going to take two or three years to be chased back where they belong and that is going to kill the electronics side for a couple of years. For some reason, and I can't figure out what it is, this industry has attracted the largest number of absolute flakes that I have ever seen in my life. . . .

ODOM: "You couldn't have put it any better. . . ."

DEHNERT: "It's just like that grey box in your house that turns the electricity on and off; it's magic. There is something about our business that is magic and these idiots flock to the magic like moths to a bright light!"

CSD: Well, you brought it up. First the electronics went overseas . . .

DEHNERT: "I can't point a finger at anybody because I want overseas first, or I was one of the first."

ODOM: "I don't think 'going overseas' is the evil; you simply have to control what is happening there. . . ."

DEHNERT: "If you go to Japan and say 'build me a good receiver,' they will build you a good receiver. If you go to Japan and say 'build me junk,' they will build you junk. But what is really hurting now is that Japan was cranked up to build boat loads of their own 12 gigahertz receivers for their DBS program. When their satellite quit, they had a (expletive deleted) pot-full of microwave parts set aside for those DBS receivers. And all of these parts are now being flushed directly into this market. And that allows the Taiwanese and the Hong Kong and Korean companies to get the parts they need to build C band units. And they will come in here and just flush that (expletive deleted) through here like crap through a goose. And they'll bleed the hell out of the marketplace in the process. Toki. They started out as Astron and it didn't sell very well and it got a bad name early so they changed the name, Toki . . . it 'sounds Japanese' and now they can



DEHNERT: "I didn't have itchy underwear for several winters to let some banker come in and skim my cream!"

sell that (expletive deleted). And that's a Korean company."

ODOM: "I had two of those son-of-a-bitches quit in our display right here at the show. . . ."

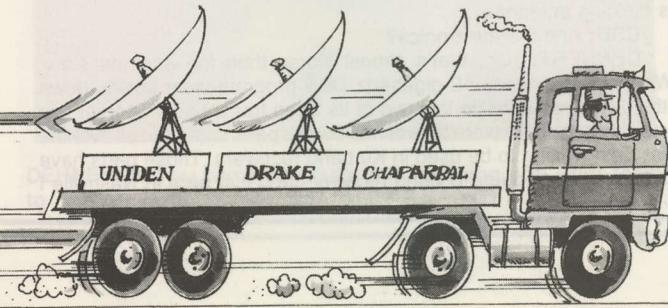
DEHNERT: "They are already going dealer-direct in Canada. That's how they do things in Korea. First they bring in a boatload and they load up the distributor pipeline. Then along comes the second boatload and they see that the distributors have so many in stock they can't unload the second boatload on the distributors. So they set up

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ODOM: "I don't think going overseas is the evil . . ."

to go dealer direct. I guess when the third boatload comes in if the dealers are still loaded up they'll go **consumer direct** with the receivers! They don't give a (expletive deleted) and after they have crammed all of the crap down our throats we can swallow, they'll get out of the marketplace and build some other widget. They won't be here five years from now and they simply don't care what happens to the products they build after they are sold. It's an entirely different marketplace philosophy!"

CSD: What about antennas? How far away are we from seeing an Oriental invasion of antennas (*)?

DEHNERT: "It won't come from Taiwan nor will it come from Hong Kong, initially. I've heard the same stories you have about a Taiwan firm tooling up for ten foot dishes and electronics and LNAs as a single package, but I doubt it. Korea and Japan are another matter. Korea could do it just like they did the Astron and Toki receivers. **Buy the boatload, sell them, and run like hell!** Japan would and could do it if the numbers were there; big numbers. And if they did it, they'd do it right. Let me lay a little Japanese story on you.

"The total land mass area of Japan, the country, is equal to roughly 75% of the state of California. Out of that landmass area, 17% of it is useable. They have absolutely no natural resources and 122 million people live in that country. That would be like taking half the population of the United States of America and moving them to San Diego county. And because they have virtually no natural resources, 98% of everything they do over there comes from imported goods or raw materials. Now they take their boats and they send them to North America and Africa and so on and they load up iron ore and they load up bauxite and they load up oil and copper ore and so on, and they run this stuff back to Japan where they run it through finishing mills creating raw steel and wire and aluminum and so on. Then they run these finished materials down to Toyota where Toyota molds and welds and forces all of these materials into automobiles and trucks. Then Toyota loads up their finished vehicles on a boat and they haul them to Long Beach, California where they set the finished vehicle on a dock where it has a \$1500 price advantage over a comparable American product.

"Now, how in the hell can they do that?

(*) Between this dialogue in Nashville and mid-November, the first 'boat-load' of exact-copy mesh antenna ("Just like Paraclices . . .") have arrived from Korea at pricing that is below Paraclices and most US-competitive products.

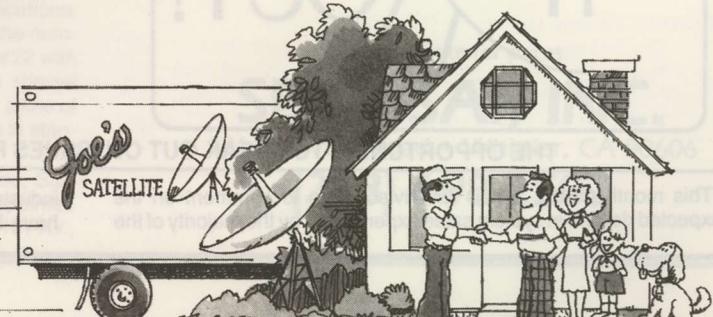
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"They work harder in Japan. They don't have unions in Japan and some ass-hole standing on a production line saying 'That ain't my job!'"

ODOM: "I like that. That's the same thing I try to do with my incentive plan; the more antennas we ship, that meet my standards, the more incentive my workers receive in extra pay."

DEHNERT: "One more Japan story. I have a friend who is an engineer with Kawasaki Heavy Industries in Japan. Now Kawasaki recognized, back in the early 70's, that if they were going to sell motorcycles in the United States, they were going to have to build the damn things here. Or they were going to let legislated out. Kawasaki has a facility in Akashi, Japan that builds five models of their motorcycles for export to the European continent. That same facility originally built motorcycles for export to the United States. They built an exact copy of that facility in Japan and transported it by ship to Nebraska. They built a building near Omaha and put this entire plant inside of that building, exactly duplicating what they had in Japan. Then they took all of the people who were going to work in the Nebraska facility and they hauled them to Japan and trained them for three months to work in the duplicate Japanese facility, teaching them exactly what they would be doing in the same position with the same equipment in Nebraska. Then they brought all of these people back to Omaha and put them to work building those same five large displacement motorcycles."

"Two years ago I was in Tokyo while the big motorcycle show was on and I ran into my friend. During the interim years they had moved him into production engineering, to round out his education. I asked him how they were doing with the Nebraska plant.

"He told me it took them 385% more production man-time per motorcycle in Omaha than it took them in Japan. And everything is absolutely identical except for the people! In Japan they are Japanese, and in Nebraska they are Americans. Now . . . explain that!"

ODOM: "I've said for years that if we could ever figure out how to get the American worker to produce at an average of 80% of their capacity, we could double America's output, cut the costs in half, and allow all of the women to go back home to take care of the babies! Let me tell you what I did once that illustrates this.

"I sat up on the Alaska pipeline for three damn weeks and never did a lick of work. I just rode around in this pick-up truck with the foreman on the job and I was getting paid \$1772 a week!

"Now here is why I was doing nothing. They had a big pile of sand that was being hauled down to fill some supports that hold up the oil pipe line. The master plan was that our group would load 17 trucks per day. Each truck would carry 20 yards of this slurry sand and I could load a 20 yard truck in 54 seconds with the loader I was supposed to run. Then to speed up the work they brought in a second group and this group had **their own** loader and loader operator. This guy was not as fast as me but he could load 35 to 40 a day without any strain so my foreman, who was from Arkansas, told me to 'back over in the corner and ride with me.' The contract said there had to be a loader with **each crew** and even if one loader could do it all with plenty of time to

spare, we still had to have two loaders on the premises.

"And they never even missed me. Now somebody, someplace, was paying that \$1772 a week and it didn't take long for me to realize that while they were bound and determined to pay somebody that money to sit there and do nothing, it wasn't going to be this old boy!"

CSD: Let's turn this discussion of 'American efficiency' into a set of closing observations about antenna efficiency. Doug, you first.

DEHNERT: "OK, try this one on for size. Of all of the TVRO antennas out there, in America, installed and operating, the **average** home antenna system is delivering not more than 55% efficiency and many are worse than that. And all of the other numbers are bullshit."

CSD: You really believe that?

DEHNERT: "I said **average**, and that means there are as many below 55% as there are above it. A really good antenna will do 63 to 65% and there are none out there better than that."

ODOM: Let me ask a question. There are some antenna testing ranges around that will hire out to measure your antenna efficiency. Doug, you have had your antennas on ranges for years. I believe you know what happens when they are tested and what numbers to believe. Just how accurate are those range tests?"

DEHNERT: "You can make the tests say anything you want them to. You see, we got into a situation in this industry where people who didn't know what they were saying, or doing, started inching up the numbers. First 60%, then 65% and it just sort of escalated from there. Now we see numbers in the low to mid-70's and we hear the explanation that 'the feeds' have gotten better. Now, I use the same feeds as everyone else, and I have tested them all on a quality test range. If the feeds are the same, the only thing left is the parabolic accuracy. And I know what mine is. So if I have my antennas tested and they test out in the 63 to 65% range, I know damn well that somebody else using the same feeds with their surfaces is not going to magically get 75% efficiency. No way."

ODOM: "I took several of my antennas to (name of testing company) and spent \$5,000 in one day getting them tested. Then I sent our four piece antenna to (name of another testing source) and had it tested. The numbers did not match. I don't know which set, if either, to believe."

DEHNERT: I'd be skeptical of both sets. People have turned antenna range measurements into a numbers game; what should have been an exercise in precise measurements has become hype to promote product. Until we can all test on the **same range**, using the **same equipment** and the **same measurement personnel**, I believe only my own and nobody else's."

CSD/2 thanks Randall Odom and Doug Dehnert for the 'dialogue' and their willingness to discuss, openly, the problems they face in the (fibergalss) antenna production business. Both Dehnert and Odom have shown what hard work, dedication and perseverance can do for a man's success in a young industry such as TVRO. The industry is far better off because both men are a part of it. Thanks fellows, and keep up the good work!

DISH
IT OUT!

THE OPPORTUNITY TO SPEAK OUT ON ISSUES FACING OUR INDUSTRY TODAY.

This month CSD/2 asked its advisor corp to comment on the unexpected decline in system sales experienced by the majority of the

industry between mid-September and early November. This **should** have been the peak of the TVRO selling season, based upon the

ON THE TABLE:
'What Happened To Sales This Fall??'

experience of previous years. It was not. Dealers, distributors and OEMs reported a surplus of equipment at virtually all levels existed during this period although southern retailers and distributors did note a marked increase (by up to 100%) in equipment mobility starting around the 1st of November. This view was enhanced by the unexpected (large) turn out at the Dallas SES/Pan-Am Show bringing in many more existing and 'potential dealers' than had been expected.

Our question for this month's 'Dish It Out' segment was simply 'Why have we experienced a decline in retail sales this fall?.'

"Although business has been rollercoastering all year, sales have tripled for S.T.S. South. I believe that our fall slowdown was due to two identifiable factors:

"When the sales projections were released earlier this year, I felt they were way out of line. I did not base our own company's sales projections using these estimates. Hopefully, our 1985 projections will be based upon more dealer/distributor estimates that the OEMs 'How Much Can We Produce?' numbers. However, both dealers and distributors can influence manufacturer projections by cooperation, **communication**, and scheduling of production and shipment of products. The age of close communication efforts between all levels of our industry is upon us and we as the industry leaders must recognize proper growth management with long range goals if we are to stabilize our industry's efforts.

STEVEN L. RIESER
S.T.S. SOUTH, INC.

"Secondly, while discussing the rollercoaster effect in sales with many of our dealers, I find they feel that broad based advertising, such as that now being done by Uniden, Drake and Winegard, is at least partially the key to meeting these enormous sales projections.

"The consumer's awareness of our industry is still in its primitive stages. To date the dealer has had from the manufacturer/distributor little, if any, real marketing support. **Most dealers have bought on price rather than marketing support.** In 1985, if a coordinated effort between manufacturer/distributor and dealer is launched on just 'consumer awareness' for the dollar entertainment value returned to the customer for his investment, we may very well see our wildest projections become a reality."

Readers, as always, are invited to respond to statements in 'Dish It Out,' or request that they be added to the initial 'Dish It Out' questionnaire mailing list. Send requests and comments to **CSD/2**, P.O. Box 100858, Fort Lauderdale, Fl. 33310.

NEW PRODUCTS continued from page 6

the manufacturer certifies both for 2 degree spacing when adjacent birds have opposite polarities (6'). Dubbed the 'Pat-Sat' (for 'patio satellite antenna') system, a steel polar mount is specially designed to be a part of the backup structure for the dish proper, close to the dish. A base pole structure is designed so the package can become part of a patio furniture set (shown) providing both 'disguise' and additional base integrity. The canopy material is said to be water repellent nylon, microwave transparent, fabricated over a plastic rib structure. Easy access to the electronics is featured. There is a five year guarantee against 'fading' of the canopy and a 10 year structural guarantee.

NEMAL ELECTRONICS INTERNATIONAL (12240 N.E. 14th Avenue, North Miami, Fl. 33161; 305/893-3924) has a new line-up of direct-burial cables specifically created for actuator applications. Motor power and sensor/control functions are matched with the number and type of conductors needed from the ST-1 (2 #16, 2 #22 with foil drain wire) and ST-2 (2 #12, 3 #22 with foil drain) to special packages for special applications. Nemal also manufactures a line of cables with coaxial conductors and receiver voltage carriage in standard polyethylene jackets.

NORSAT INTERNATIONAL (205-19425 Langley Bypass, Surrey, British Columbia V3S 6K1 Canada; 604/533-1921) has appointed Dennis Shouldice of Skytrak Earth Stations (1842 East 11th Av.,

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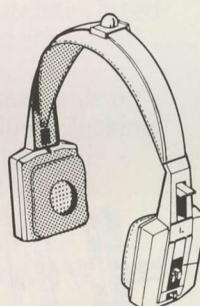
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Vancouver, BC V5N 1Z1; 604/873-8222) as a manufacturer's representative for the Canadian market. Shouldice was a pioneer designer and manufacturer of TVRO antennas in Canada previously. NORSAT is a large supplier of LNA products in North America.

NUTREND MANUFACTURING COMPANY (710 So. 6th St., Omaha, Ne. 68012; 402/346-6899) recently began production on a pair of one-piece TVRO fiberglass antennas. Available in 5 and 8 foot diameters, both antennas feature flame sprayed molten zinc reflective surfaces and polar mounts.

SOUTHERN SPUN MARKETING (Counce, Tennessee; 901/925-8323 or 601/544-5082) has a new 9' spun aluminum antenna with a .34 f/D ratio (36" focal point). The antenna is epoxy finished heat dried after application.

SUPERWINCH, INC. (Connecticut Route 52 at Exit 95, Putnam, Ct. 06260; 203/928-7787) has added a model 4155 actuator control to its product line. The successor to the 4152 unit, it is a digital display readout east/west manual operate control system, designed to foil inquisitive youngsters (and oldsters) who lack the 'key' to its control secrets.

ERRATA

MICRO SCIENTIFIC LABS, INC. (4719 South Cobb Drive, Smyrna, Georgia 30080; 404/435-8630) has created a completely portable 24 inch cassegrain-fed reflector system and tripod package for TI (terrestrial interference) studies. Their TI 9000 comes with a 65-70 degree LNA/ 50 dB gain 'driver package.' The concept is that quick, reliable TI tests can be conducted with the transportable package, eliminating hauling larger antennas into sites where TI may be a problem.



TI FINDER from MSL

NATROPOLIS INDUSTRIES (2350 Patrick Lane, #2, Las Vegas, Nv. 89119; 702/736-1455) has an ingenious level finder tool useful for measuring or setting angles when installing TVRO dish antennas. Imported from Sweden, the unit uses parallel-line technology to allow

you to set any desired angle you wish, in advance. The unit will allow accurate plumbing of vertical support pipes as well as setting declination and offset angles on polar mounts. Lengths of 10, 24 and 48 inches are available.

SERVICE NEWS

FANTASY UNRESTRICTED NETWORK (FUN, 2902 Almaden Expressway, San Jose, Ca. 95125; 408/559-8812) has declared 'war' on firms and individuals collecting or soliciting funds as self-proclaimed 'sales representatives' of the network. FUN is concerned that dealers and others adding Fantasy decoders to their pricing schedules, not authorized to sell legitimate decoders, are either dealing in underground decoding equipment or collecting funds for equipment they cannot deliver. They ask that dealers and others who are concerned about the integrity of the service offered by FUN contact them for a list of UNauthorized dealers and distributors.

FUN rates are currently \$350 for year one and \$200 for each subsequent year with 5-1/2 hours of service seven nights per week starting at 12 midnight (eastern), W5, TR24.

OAK MEDIA CORPORATION (16935 West Bernardo Drive, Rancho Bernardo, Ca. 92127; 714/485-9300) has severed its relationship with Telstar corporation and moved its downlinking service from D4 to RCA's F1R at 139 west. Under the new F1R arrangement, the eastern feed will be on TR1 while the western feed will be on TR5. Additional transponder changes may be coming.

KTVT, Dallas-Fort Worth independent has moved from TR21 of F4 to TR22 of Comstar D4. The United Video service signal was moved to allow SMATV and cable firms to retrofit existing F3R/Galaxy multi-beam antennas for carriage of the KTVT service. United's WPIX remains on TR19 of F4 although additional transponder space on D4 is being studied by United.

HBO tests, TR21, G1 for initial 101 units supplied by M/A-Com nearly completed; HBO 'very pleased' with results, HBO will 'kill' HBO east, TR24 F3R, shortly and move to TR20 (now Cinemax east) as 'backup.' Cinemax east will be available **solely** on Galaxy (TR19). Effective January 1, ARTS will be on TR24 of F3R. M/A-Com started production-line VC2C descramblers December 7th and instructions to cable firms transmitted TR22 F3R 'daily' for indefinite future.

BUSINESS News

AVANTEK held formal dedication of their new Folsom (California) facility on December 12th. The new facility will be capable of increasing Avantek production capabilities in all areas of microwave technology including TVRO related products.

BIRDVIEW Satellite Communications (Olathe, Kansas) reports another increased-sales quarter ending September 30th. The firm had net earnings of \$1,255,402 on sales of \$11,803,058 bringing the six month net earnings to \$1,799,193. There are more than 8.6M shares outstanding for the OTC operation.

HASTINGS ANTENNA has appointed **Joe Anderson** as their new President. He replaced Dale Curtis and moves up from VP of Marketing. Bob Beirow is new executive VP, Jim Patrick is new VP in charge of sales and Lu Morrow is sales manager.

INTERSAT CORPORATION (Lake St. Louis, Mo.) reports **Al Bishop**, VP of advertising will also assume duties as Director of Educational Services. His new area of responsibility will include the Young Astronaut Program. Also at Intersat, **Mike Pecoroni** has been promoted to Vice President for sales and marketing; **Dr. Tom Robertson** (PhD) has been appointed to the position of Manager for Corpo-

HBO/DBS 'Upside Down'

The first two weeks in December have been 'busy' in the DBS world:

- 1) Satellite Television Corporation, the DBS subsidiary formed by COMSAT to develop and market a 12 GHz (Ku band) four to six channel system in 1985 or 1986, has called it quits. COMSAT is taking a \$24,000,000 'loss' and shutting off the project entirely.
- 2) Showtime/The Movie Channel had signed a contract with M/A-Com to use the LinkAbit scrambling system (VC2 series). This is the same package HBO/Cinemax had previously selected, and now being tested on TR21 of G1.

Observers felt that with Comsat throwing in the towel on 12 GHz DBS, and Showtime agreeing to use scrambling (they said 'late in 1985') the pressure was now off HBO to move quickly in this area. Most felt **HBO would now proceed far more slowly** in formulating their own scrambling-marketing plans and do everything possible to avoid being drawn into court with SPACE or the home TVRO industry.

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The 4100. The Antenna Positioning System That Does It All Perfectly.

This MTI 4100 incorporates some of the most advanced features in the world: like a nonvolatile memory that lasts 99 years and never needs a

replacement



battery and an easy-to-read keyboard. And it's easy to use. Also includes:

Wireless, infrared remote control.

Fully programmable polarity controlled by built-in Polarotor™ Interface.

Fully programmable memory skew on every satellite, every position.

Mechanical locking limits built into actuator.

Interface available to allow remote control operation of certain receivers from the MTI remote. You get a "one-remote" operation.

125 feet of pre-assembled cable included in price.

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It's popular for all the right reasons. The MTI 2100 Antenna Positioning System is attractive and easy to use. It's got a new low price, and it's an unbeatable performer. Look at these specs:

Completely programmable East/West movement: can "recall" any satellite from memory at the push of a button, time and time again.

Unique programmable locking feature—can lock antenna in any position, on or off satellite.

All known satellites listed on keyboard and spares for future launches.

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2100 or 4100. It offers unequaled style, design and ease of operation in a manual East/West digital antenna positioner. It features:

Large, easy-to-read LED digital



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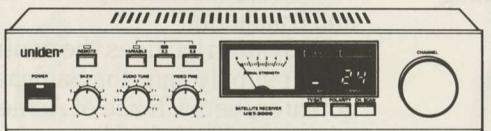
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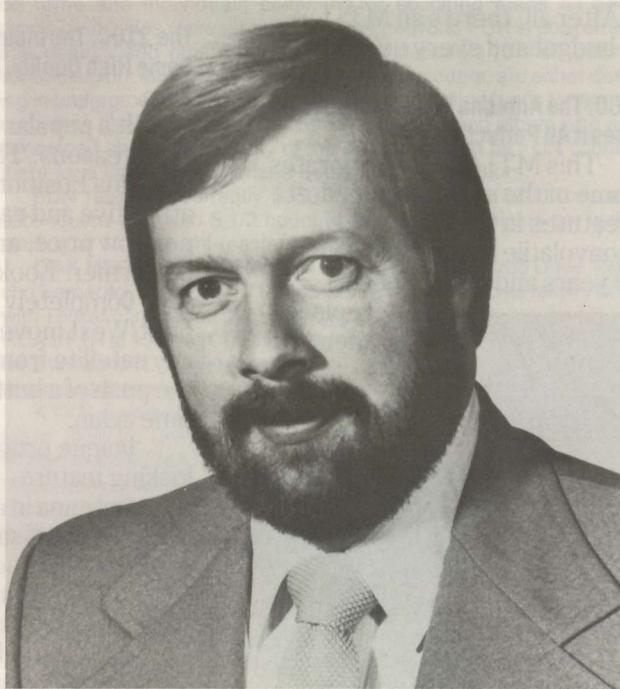
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MID TEC COMMUNICATIONS (Richland Center, Wi.) reports a highly successful training seminar late in October with more than 100 TVRO dealers attending the two-day event. Subjects covered included antenna mounts and dishes, alignment adjustments, (basic) TVRO electronics, trouble shooting, sales presentations and marketing. Mid-Tech plans four such events annually (800/843-8324).



BURKHAMER from Mid-Tech Expands Training Program

RFMONOLITHICS, INC. has appointed **John D. Applegate** as President and CEO. John was previously VP for equipment at the Dexcel Division of Gould.

UNIDEN Corporation of America has retained **The Rowland Corporation** to handle the firm's public affairs and marketing public relations. Uniden has also announced that **Olin D. Lippincott** has been appointed as VP of Sales handling the firm's TVRO sales program nationally. Also at Uniden; **Terry Dixon** has been appointed VP of Sales for the Western Division, **Gary Gibson** has been engaged as National Service Coordinator, **Phil Scott** has been named Order Process Manager while **Rick May** and **Michael Crall** have been appointed as regional sales managers.

CALENDAR/ Through January 31st

DEC. 20	Boresight TVRO Magazine, F4, TR16, 9 PM (eastern)
DEC 27	Boresight TVRO Magazine, F4, TR16, 9 PM (eastern)
JAN 03	Boresight TVRO Magazine, F4, TR16, 9 PM (eastern)
JAN 5/7	Consumer Electronic Show, Las Vegas (SPACE Board meeting; contact Chuck Hewitt 703/549-6990 for details).
JAN 10	Boresight TVRO Magazine, F4, TR16, 9 PM (eastern)
JAN 11/12	Installation School and Dealer Seminar, Sacramento, Ca. by Home Satellite (916/441-6036)
JAN 15/17	Jerrold Technical Seminar, San Francisco (Ann Pliscof, 215/674-4800)
JAN 17	Boresight TVRO Magazine, F4, TR16, 9 PM (eastern)
JAN 22/24	Blonder Tongue SMATV/CATV Technical Seminar, Atlanta, Ga. (201/679-4000, Sharon Leight, for information)
JAN 24	Boresight TVRO Magazine, F4, TR16, 9 PM (eastern)
JAN 31	Boresight TVRO Magazine, F4, TR16, 9 PM (eastern)

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Don't Try This Stunt At Home.



Mark Fator photographer

This was fun. It was a lot of work too, but it was fun seeing if we could actually do it.

It began as a little sketch on the margin of a note pad, and after a great deal of thought and a huge amount of convincing — Mike loaned us his car.

We parked a real live Mercedes Benz 300D on top of an absolutely box-stock Paraclide antenna.

The 3.8 meter Paraclide was assembled meshless and placed face down in a shallow pool of water. We fabricated a special steel H-shaped

rack to provide a flat surface at the balance point. The car's forward weight bias was counter-balanced with 300 pounds of steel plate in the trunk.



The total dead weight was 4,522 pounds. Total deflection under load was 1 inch and when the whole ordeal was over, the hub plate was only .45" closer to the floor than before.

Last year, during a "destruction test," we dropped 5,200 pounds of steel stock on the same antenna; so we weren't really surprised when this stunt worked.

What does it prove? Just one thing: We build a very, very strong antenna.

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